

**Occupational Stress and Hardiness Personality Traits in Trainee IAPT  
Therapists: Providing Care in the Modern NHS**

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## **Thesis abstract**

**Objectives.** An interactive model was utilised to determine the levels and sources of perceived occupational stress, experienced psychological strain and coping resources in a sample of trainee Improving Access to Psychological Therapies (IAPT) therapists. In addition, the present study explored the relationship between 'hardiness personality traits' and occupational stress.

**Design.** A cross-sectional design requiring participants to complete three questionnaires.

**Method.** A response rate of 73% (n = 44) was achieved through an opt-in method of recruitment. Participants completed three questionnaires: a demographic questionnaire; the Occupational Stress Inventory-Revised (OSI-R) (Osipow, 1998) and Hardiness Scale (HS) (Bartone, Ursano, Wright & Ingraham (1989) modified version of Kobasa, Maddi & Kahn's (1982) original scale).

**Results.** The average age of participants was 32.9 years old, 95.5% were white British, and 79.5% were female. 95.4% of participants reported normal levels of perceived stress, 83.9% indicated normal levels of experienced strain and 90.8% reported average levels of coping resources. Although all subscales were within the normal range, the subscales of: Role Boundary, Physical Strain and Social Support were identified as the highest source of: perceived occupational stress, experienced strain and coping resources respectively, as measured by the OSI-R. Significant gender differences were found relating to perceived stress, with males reporting higher scores than females, but not experienced strain or coping resources subscales. No significant difference was found between age ('younger' <33; 'older' >33) of trainee and perceived stress.

However, older trainees experienced higher Interpersonal Strain scores than younger trainees. Younger trainees engaged in more Recreation and Social Support as coping resources, than older trainees. Significant differences were found between low-intensity and high-intensity trainees on perceived stress and coping resources, but not experienced strain. Female participants scored higher than males on the commitment component of 'hardiness'. Older trainees scored significantly higher than younger trainees on the challenge component of 'hardiness'. Low-intensity trainees scored significantly lower than high-intensity trainees on the challenge component of 'hardiness'. Commitment and control components of 'hardiness' were significantly negatively correlated with stress, and accounted for appropriately 33% variance in stress levels.

**Conclusions.** The findings of this study are discussed in relation to other studies exploring occupational stress in trainee mental health professionals, in particular trainee clinical and counselling psychologists. In addition, findings are discussed in relation to previous studies employing the OSI-R. The main strengths of this study include a good response rate (73%) and the study's original contribution to occupational stress research and research within the area of IAPT services. Limitations of this study include: utilising self-report measures, social desirability effect, response bias, and limited demographic information available. Recommendations for future research are discussed, including: incorporating more demographics, individual and situational differences, incorporating objective measures of stress and introducing a qualitative component. Finally, clinical implications of this study are explored in relation to: the role of personal therapy in training mental health professionals, reducing financial costs to the organisation, legal implications, the use of



supervision to reduce trainee stress, creating the 'right' learning environment, screening for 'hardy' trainees and introducing a 'hardiness' training component within the programme.

### **Statement of contribution**

The author was responsible for the project design, applying for ethical approval, writing the review of the literature, recruiting participants, data collection, scoring questionnaires, entering data and data analysis.

The author would like to express gratitude to Mark Gresswell, course research tutor and Carol Brady, clinical research tutor, for their continued support and guidance. Appreciation is further extended to Dave Dawson for his statistical advice.

## **Journal paper**

British Journal of Clinical Psychology (Word limit: 5000) [*See journal appendix a for guidelines for authors*]

### **Occupational stress and ‘hardiness personality traits’ in trainee IAPT therapists: Providing care in the modern NHS**

**Objectives.** This study aimed to assess the sources and levels of occupational stress, strain and coping resources in trainee Improving Access to Psychological Therapies (IAPT) therapists. In addition, it explored the relationship between ‘hardiness personality traits’ and stress.

**Design.** A cross-sectional design requiring participants to complete three questionnaires.

**Method.** An opt-in method of recruitment was employed. 44 (73% response rate) trainees employed by two NHS Trusts and enrolled on the IAPT training programme, completed a demographic questionnaire, the Occupational Stress Inventory-Revised (OSI-R) (Osipow, 1998) and Hardiness Scale (HS) (Bartone, Ursano, Wright & Ingraham (1989) modified version of Kobasa, Maddi & Kahn’s (1982) original scale).

**Results.** 95.4% of participants reported normal levels of perceived overall stress, 83.9% self-reported normal levels of experienced overall strain and 90.8% reported average levels of overall coping resources. Role Boundary, Physical Strain and Social Support subscales were identified as the highest source of perceived stress, experienced strain and coping resources respectively. Males reported higher stress scores than females. No significant

difference was found between age of trainee and stress. Significant differences were found between low-intensity and high-intensity trainees on sources of stress and coping. Two components of 'hardiness' (commitment and control) were significantly negatively correlated with stress, and accounted for approximately 33% in the variance of stress levels.

**Conclusions.** The results of this study are explored within the context of previous research with other trainee mental health professionals, and previous studies employing the OSI-R. Recommendations for future research are discussed, concluding with clinical implications of the findings.

Word count: 250

Occupational stress costs United Kingdom (UK) organisations an estimated £3.7 billion every year (Health & Safety Executive, 2005) through: lost productivity, absenteeism, accidents and insurance payouts (Sutherland, Fogarty & Pithers, 1995). *[See extended background 1.1, 1.2, 1.3, 1.4]*

The Health and Safety Authority Ireland (2000), states that the most common sources of occupational stress are: prolonged and increased pressure to maintain quality of work; lack of personal control; conflicting demands; ill-defined work roles; job insecurity and excessive working hours. In addition to these, other sources of stress may originate from relationships with co-workers or management, dissatisfaction with career progression (Parker & DeCotiis, 1983) and the structure of the organisation itself (Fogarty et al., 1999).

Occupational stress has been extensively studied (Sutherland et al., 1995), along with various theories of occupational stress (Kenny, 2000). Two theories: Role theory and Person-Environment fit (P-E fit) [see extended background 1.5] are theories frequently reported in the occupational stress literature and are the most relevant to this study. Role theory argues that roles within a work environment can be stressful regardless of the specific occupation. Having more than one role in the work environment (role conflict), having unclear expectations (role ambiguity) and too many demands (role overload) are three elements specifically mentioned as contributing to occupational stress (Kahn, 1973). According to the core premise of the Person-Environment fit (P-E fit) Theory (French, Caplan & Van Harrison, 1982) occupational stress is defined in terms of work characteristics that create distress for the individual due to a lack of fit between the individual's abilities, attributes and the demands of the workplace.

Given the increasing awareness of the importance of occupational stress [see extended background 1.6 & 1.7], researchers have investigated variables that may promote stress resistance (McCraine, Lambert & Lambert, 1987). Previous studies (Beaver, Sharp & Cotsonis, 1986; Kilfedder, Power & Wells, 2001; Randall & Scott, 1988) have concluded that stress is more common among younger employees, perhaps because of the initial 'shock' of the reality of the job, a difficulty adapting to the job, or job insecurity. Results from Layne, Hohenshil and Singh's (2004) study utilising the OSI-R (Osipow, 1998) with rehabilitation counsellors concluded that as age of the counsellor increased, levels of stress decreased. In a recent study (Kumary & Baker, 2008), younger

counselling psychology trainees scored significantly higher stress ratings than older participants. However, other studies (Decker & Borgen, 1993; Fogarty et al., 1999) have found no significant relationship between age and stress, including a study exploring stress in clinical psychology trainees (Cushway, 1992). *[See extended background 1.8.(i)]*

There is continuous debate regarding the role that gender plays in relation to occupational stress, with research yielding inconsistent results. In a meta-analysis of 15 studies, Martocchio and O'Leary (1989) reported few differences, if any, between males and females and levels of occupational stress, a similar finding to others (Decker & Borgen, 1993; Fogarty et al., 1999; Layne et al., 2004; Richard & Krieshok, 1989). However, studies exploring stress and trainee clinical psychologists (Cushway, 1992), qualified clinical psychologists (Cushway & Tyler, 1994) and trainee counselling psychologists (Kumary & Baker, 2008) concluded that female participants reported higher stress levels than male participants. In contrast, a study (Marini, Todd & Slate, 1995) utilising the OSI (Osipow & Spokane, 1987) with mental health employees found that males achieved significantly higher stress scores than female participants. *[See extended background 1.8.(ii)]*

There is very little UK information about occupational stress and different ethnic groups. A recent review of ethnic minorities' occupational health and safety identified the exploration of ethnicity and work-related health issues as a research priority (Szczepura et al., 2004). *[See extended background 1.8.(iii)]*

A common stress mediator identified in psychological literature is the 'hardy personality' (Kobasa, 1982; Rodney, 2000). Maddi, Kahn and Maddi (1998) suggest that 'hardiness' involves the interrelated self-perceptions of commitment, control, and challenge. These three components help to manage stressful circumstances in a way that turns those circumstances into developmental, rather than, debilitating experiences. Commitment is said to be the tendency to involve oneself; control refers to exerting influence when confronted with stressful situations; and challenge is a belief that change rather than stability is the norm of life (Fogarty et al., 1999).

The 'hardiness' model assumes that 'hardy' individuals have adaptive cognitions, which result in lower levels of strain, in response to stressors (Turnipseed, 1999). 'Hardiness' has also been associated with a tendency to perceive stressful events in less threatening terms, to perceive the threatening situation as a challenge with increased optimism about ability to cope with the situation (Allred & Smith, 1989; Florian, Mikulincer & Taubman, 1995; Pagana, 1990; Westman, 1990; Wiebe, 1991). *[See extended background 1.9]*

It has becoming increasingly recognised that occupational stress affects the health and caring professionals, working within the National Health Service (NHS) disproportionately (Brooks, Holtum & Lavendar, 2002; Burnard, Edwards, Fothergill, Hannigan & Coyle, 2000; Cooper, Rout & Faragher, 1989; Cushway, 1992; Cushway & Tyler, 1994; Cushway, Tyler & Nolan, 1996; Edwards & Burnard, 2003; Evans, Huxley, Gately, et al., 2006; Firth, 1986; Firth-Cozens & Morrison, 1987; Hipwell, Tyler & Wilson, 1989; Kumary & Baker,

2008; Tyler & Cushway, 1992; Papadomarkaki & Lewis, 2008). Wall et al. (1997) identified that 27% of health care staff had experienced a serious psychological disturbance, compared with 18% of the general working population, with each NHS trust losing on average, an estimated £450,000 a year in stress-related absence (Gooding, 2005). More recently, changes within the NHS have resulted in health care professionals being subjected to growing economic pressures, technological advances, increasing patient expectations and the requirement for more evidence-based, high-quality, health care. Changes which are likely to lead to an increased level of occupational stress amongst NHS staff (Bamber, 2006). *[See extended background 1.10.(i) & 1.10.(ii)]*

The bulk of occupational stress research has come from studies with nurses, who represent the largest professional group working within the NHS (King, Lloyd & Holewa, 2008). *[See extended background 1.10.(iii)]* However, evidence from studies that have explored allied health professionals, such as clinical psychologists (King et al., 2002; King et al., 2008; Lloyd, McKenna & King, 2004) support the argument that they (allied health professionals) are more susceptible than nurses to occupational stress. Stress associated with conflicts working alongside professionals who work generically, and who do not work within a person-centred model have been postulated (King et al., 2002). *[See extended background 1.10.(iv) & 1.10.(v)]*

Deutsch (1984) infers that psychotherapists work under a great deal of occupational stress. *[See extended background 1.10(vi)]* Early studies (Bermak,



1977; Kline, 1972; McCarley, 1975) identified isolation, loneliness, overwhelming responsibility, doubts about treatment effectiveness, and having to control one's own emotions in sessions with clients, as the main sources of stress for therapists.

Sampson (1989) conducted a study exploring occupational stress levels among Scottish clinical psychologists and found that 68% considered themselves to be moderately or very stressed as a result of their occupation. Cushway and Tyler (1994) explored levels and sources of stress as well as coping strategies in qualified clinical psychologists. They concluded that work overload, poor quality of management, too many demands, poor pay, uncertainty about their future in the NHS and paperwork/bureaucracy, were the main sources of stress in their sample.

While most studies exploring occupational stress in mental health professionals have concentrated on qualified individuals (Kumary & Baker, 2008); trainees in such professions may be even more vulnerable (Halewood & Tribe, 2003; Truell, 2001). Stressors are likely to be exacerbated in training, both generally and with respect to specific diversities (Martinez & Baker, 2000). Cushway (1992) explored occupational stress in UK trainee clinical psychologists and concluded that for a significant proportion of trainees, training can be experienced as a particularly stressful experience. A finding supported by Kumary and Baker (2008), who examined stressors and psychological distress in UK counselling psychology trainees.

Psychological distress experienced by those working in the caring professions and students facing assessments has been well documented (Maslach, 1976; Payne & Firth-Cozens, 1987). Studies of trainee health professionals [see *extended background 1.11*] suggest that trainees may experience professionally related stressors such as dealing with clients, lack of support and constructive feedback, competition from peers and relationships with senior staff, as sources of stress. Trainees may also perceive additional stressors associated with being a student, due to examinations, time pressures, financial difficulties and work overload (Cushway, 1992).

Recently, a new addition of trainee mental health professionals have emerged within the NHS. The IAPT programme is a Government funded initiative supporting Primary Care Trusts (PCTs), to implement National Institute for Health and Clinical Excellence (NICE) guidelines for individuals diagnosed with depression and anxiety. IAPT was set up in response to mental health services being overburdened by so called 'common mental health disorders' i.e., depression and anxiety (Richards & Suckling, 2008), which account for 97% of the total prevalence of mental health disorders (The Office of National Statistics, 2000). IAPT's overall aim is to provide 900,000 more individuals diagnosed with anxiety and depression access to psychological treatment (Clark & Turpin, 2008). [See *extended background 1.12*] Most individuals with mild to moderate depression are likely to be seen by low-intensity therapists (Department of Health, 2008a). Low-intensity treatments emphasise client self-management with less emphasis on individual contact between client and mental health worker.

An individual who is severely depressed or does not respond to low-intensity treatment are usually seen by high-intensity therapists, on a face-to-face basis (Department of Health, 2008a). In relation to anxiety disorders, unless the anxiety is very mild or recent (Department of Health, 2008a), the client will be referred to high-intensity therapists.

Given the findings within the occupational stress literature that trainee mental health professionals are susceptible to stress (Cushway, 1992), no published research is available exploring occupational stress in trainee IAPT therapists. It is important to investigate the levels and sources of perceived stress as well as variables that may mediate stress within this professional group, as the NHS, as an organisation has a responsibility and duty of care for the wellbeing of its employees. In addition, identifying the levels and sources of coping resources employed by trainees may be useful to establish, in order to effectively support trainees through their training. Findings from this study may play a pivotal role for clinical psychologists who have taken on an active leadership and management role within IAPT services (Dimmock, 2009). Clinical psychologists have become involved in IAPT training programmes and in providing supervision for both qualified and trainee IAPT therapists. It is important for clinical psychologists to be aware and familiar with perceived sources of stress and strain, in order to manage and promote wellbeing of IAPT therapists and trainees, who are working within the stressful environment of the NHS (Kovas, 2007). The current study therefore addresses the following research questions:

- I. What are the levels and sources of stress, strain and coping for IAPT trainees?
- II. What is the relationship of age, gender and intensity of trainees, and levels and sources of stress, strain and coping?
- III. What is the relationship of age, gender and intensity of trainees, and levels of 'hardiness'?
- IV. What is the relationship of 'hardiness personality traits' and stress?
- V. Can 'hardiness' predict stress levels?

## **Method**

### *Participants*

Participants were trainee low and high-intensity therapists enrolled on the IAPT programme and employed by two NHS Trusts (both Trusts were in their second year of providing an IAPT service). A response rate of 73% ( $n = 44$ ) was obtained. The mean age of the 44 participants was 32.9 years ( $SD = 10.6$ ) and 79.5% were female. 95.5% of participants were white British, 2.3% were mixed white and black Caribbean and 2.3% were mixed white and Asian. Due to the low representation of ethnic minorities, it was decided that ethnicity as a variable would not be entered into further statistical analysis. 63.6% of participants identified themselves as low-intensity IAPT trainees, whilst 36.4% were high-intensity IAPT trainees. The highest percent of participants (45.5%) identified having a first degree from a UK institution as their highest qualification on entry onto the IAPT programme. *[See extended background 1.13 & 1.14]*

### *Measures*

The questionnaire packs included the following three questionnaires for participants to complete: a demographic questionnaire [see extended appendix a], Occupational Stress Inventory-Revised (OSI-R) (Osipow, 1998) and Hardiness Scale (HS) (Bartone, Ursano, Wright & Ingraham (1989) modified version of Kobasa, Maddi & Kahn's (1982) original scale).

### *Demographic information form*

Participants were asked about their age, gender, ethnicity, low or high-intensity trainee, employing NHS Trust, year of enrolment on the IAPT training programme and finally their highest qualification on enrolment to the programme.

### *The Occupational Stress Inventory-Revised (OSI-R)*

The OSI-R (Osipow, 1998) is based on a previous version of the instrument that was developed by Osipow and Spokane (1987) to measure occupational adjustment on three different dimensions. The OSI-R's three dimensions are defined as the Occupational Roles Questionnaire (ORQ), Personal Strain Questionnaire (PSQ) and the Personal Resources Questionnaire (PRQ). The OSI-R yields 14 different scales and comprises of 140 items in total. The OSI-R shows good reliability as indexed by internal consistency coefficients, ranging from .70 to .89 (Osipow, 1989). [See extended background 1.15.(i) & 1.15.(ii)]

### *Hardiness Scale (HS)*

Bartone et al. (1989) slightly modified the original HS constructed by Kobasa et al. (1982), in order to correct a number of problems found in the original 'hardiness' measure; such as long and awkward wordings and the exclusive use of negative item indicators. The HS contains 45 items, with each component (commitment, control and challenge) consisting of 15 items; each rated on a 4-point scale (from 0 = not true, to 3 = completely true). The three subscales in Bartone et al. (1989) modified scale, shows good reliability as indexed by internal consistency coefficients, ranging from .62 to .82. [See *extended background 1.15.(iii) & 1.15.(iv)*]

### *Procedure*

The present study employed an opt-in method of recruitment. The study was presented to trainee IAPT therapists by the researcher at the beginning of several training/supervision sessions and/or team meetings during the month of June 2009 at the two NHS Trusts. Participant information sheets [see *extended appendix b*] regarding the study were distributed to participants who attended these sessions/meetings.

Questionnaire packs were then placed in a box labelled 'questionnaire packs' within participants' allocated training, supervision or team meeting rooms at both locations. Participants were informed that they could opt into the study by taking a pack to complete if they were interested. A further box labelled 'completed questionnaires' was made available for completed questionnaire packs.

Participants consented to the study by returning the completed questionnaires to the relevant box in the sealed envelope provided. *[See extended background 1.16]*

#### *Confidentiality, consent and ethical considerations*

The study received favourable opinion from the following: Leicestershire, Northamptonshire and Rutland NHS Research Ethics Committee 2, Nottingham City Primary Care Trust (PCT) and Lincolnshire Partnership Foundation Trust (LPFT) Research and Development Organisational Approval, and University of Lincoln Ethical Approval for Human Research Projects. *(See journal appendix b)*

To ensure confidentiality, participants were asked not to put any personal or identifiable information on their completed questionnaires, which were later stored in a secure locked filing cabinet at the University of Lincoln.

Contact details pertaining to the researcher were detailed at the end of the participant information sheet. This was for addressing queries or concerns from participants about the study. Occupational health contact details for the two NHS employing Trusts were detailed on the information sheet as a supportive initiative for participants, who may have felt they needed to talk about the issues raised in the questionnaires. *[See extended background 1.17]*

## Results

Data was analysed using the Statistical Package for the Social Sciences software (SPSS Version 14.0) (SPSS Inc., 2008). The data was initially tested for missing data *[see extended results 2.1]*, outliers *[see extended results 2.2]* and normality. *[See extended results 2.3]* Normality tests indicated that the data was not normally distributed. *[See extended results 2.4]*

*Results corresponding to question one: What are the levels and sources of stress, strain and coping for IAPT trainees?*

Table 1 shows that the mean T scores for all perceived stress (ORQ) variables for the participants as a group, are within normal range (T scores 40-59) in accordance with the OSI-R manual. *[See extended appendix c]* Table 1 also shows that stressors associated with the Role Boundary subscale was the highest (although still within the normal range) source of perceived stress. The differences between subscale means for sources of perceived stress were not tested for significance; therefore, caution should be applied when interpreting the results). When exploring mean T scores on overall ORQ, 95.4% obtained a score within the normal range, 2.3% obtained a score that would indicate a relative absence of stress, with the remaining 2.3% indicating mild levels of stress.



**Table 1: Descriptive statistics displaying mean T scores and standard deviations for sample (n = 44) on the OSI-R subscale Occupational Role Questionnaire (ORQ)**

ORQ Subscales	Mean	Std. Deviation
Role Overload	51.09	8.04
Role Insufficiency	50.36	10.87
Role Ambiguity	51.64	8.77
Role Boundary	53.64	8.98
Responsibility	43.68	6.45
Physical Environment	44.95	4.50
<b>Occupational Roles Questionnaire</b>	<b>49.23</b>	<b>7.93</b>

Table 2 shows that the mean scores for all experienced strain (PSQ) variables for participants are within normal range (T scores 40-59). Table 2 also shows that the perceived strain associated with the Physical Strain subscale was reported as the highest source of strain (although the mean was still within normal range). However, caution should be applied when interpreting results, as significance tests were not undertaken to determine the significant differences between Physical Strain subscale means. In addition, 83.9% obtained an overall PSQ score within normal range, 9.2% obtained a mild level, 4.6% obtained a score that would indicate significant levels of strain and the remaining 2.3% of participants had an overall PSQ score that would indicate a relative absence of experienced strain.

**Table 2: Descriptive statistics displaying mean T scores and standard deviation for sample (n = 44) on the OSI-R subscale Personal Strain Questionnaire (PSQ)**

PSQ Subscales	Mean	Std. Deviation
Vocational Strain	52.55	11.46
Psychological Strain	54.25	11.12
Interpersonal Strain	50.45	9.66
Physical Strain	56.16	9.42
<b>Personal Strain Questionnaire</b>	<b>53.35</b>	<b>10.41</b>

Table 3 shows that the mean T scores for all coping resources (PRQ) variables for the participants as a group are within normal range (T scores 40-59). Table 3 also shows that coping resources incorporated within the Social Support subscale was reported as the highest coping resource employed by participants. (However, coping resources subscales means were not tested for significant differences, and therefore this result should be viewed with caution). When exploring the mean scores on overall PRQ, 90.8% of participants scored within the normal range, 6.9% reported mild deficits and 2.3% reported strong coping resources [See extended results 2.5 for additional descriptive statistics].

**Table 3: Descriptive statistics displaying mean T scores and standard deviation for sample (n = 44) on the OSI-R subscale Personal Resources Questionnaire (PRQ)**

PRQ Subscales	Mean	Std. Deviation
Recreation	48.66	8.68
Self Care	44.38	8.92
Social Support	52.73	8.64
Rational/Cognitive	42.02	11.91
<b>Personal Resources Questionnaire</b>	<b>47.76</b>	<b>9.54</b>

*Results relating to question two: What is the relationship between age, gender and intensity of trainees, and levels and sources of stress, strain and coping?*

Correlation test using point-biserial coefficients [see extended results 2.6 & 2.7] for age, gender and intensity of therapist (i.e., low or high-intensity), are presented in Table 4. Two age categories were developed by classifying all participants 33 years and above (mean age of the sample) as ‘older’ trainees and those participants 32 years and under as ‘younger’ trainees. Age was converted into a dichotomous variable in order to compare the results to previous studies. According to Perneger (1998) there is no formal consensus when Bonferroni procedures should be employed, with others (Nakagawa, 2004) arguing that Bonferroni corrections should be discouraged as the corrections increase the rate of type two errors, and conclude that reporting effect size and/or confidence intervals for effect size is more appropriate. It was therefore decided that the data in this study would be reported using effect size

and a standard Bonferroni correction procedure would not be employed. [See extended results 2.8 relating to Bonferroni correction]

The results in table 4 indicate that a significant relationship exists between Interpersonal Strain ( $r_{pb} = .346$ ,  $p < 0.05$ ) and age, between Recreation ( $r_{pb} = -.339$ ,  $p < 0.05$ ) and age, and between Social Support and age ( $r_{pb} = -.322$ ,  $p < 0.05$ ). This indicates that older trainees experience higher Interpersonal Strain than younger trainees, with younger trainees engaging in more Recreation and Social Support coping responses than older trainees.

A significant relationship between Role Ambiguity ( $r_{pb} = -.321$ ,  $p < 0.05$ ) and gender, Role Boundary ( $r_{pb} = -.334$ ,  $p < 0.05$ ) and gender and, overall ORQ and gender ( $r_{pb} = -.388$ ,  $p < 0.05$ ). This indicated that males reported higher scores (although still within normal range) on the subscales of Role Ambiguity and Role Boundary and on overall perceived stress levels in comparison to female participants.

A significant relationship existed between Role Insufficiency ( $r_{pb} = -.681$ ,  $p < 0.01$ ), Responsibility ( $r_{pb} = .405$ ,  $p < 0.01$ ) and Recreation ( $r_{pb} = -.491$ ,  $p < 0.01$ ) and intensity of therapist. This indicated low-intensity trainees have higher levels (although still within normal range) of Role Insufficiency and engaged most in Recreation as a coping resource than the high-intensity trainees. The high-intensity trainees experienced a higher level (although still within normal range) of Responsibility as a greater source of perceived stress than low-intensity trainees.

**Table 4: The relationship between age, gender and intensity of therapist and OSI-R variables using point-biserial correlation coefficients (n = 41)**

OSI-R Scales	Age		Gender		Intensity	
	$r_{pb}$	p value	$r_{pb}$	p value	$r_{pb}$	p value
Role Overload	.011	.945	-.140	.383	.214	.179
Role Insufficiency	-.112	.485	-.118	.464	-.681**	.000
Role Ambiguity	-.172	.282	-.321*	.040	-.195	.223
Role Boundary	.045	.782	-.334*	.033	.088	.583
Responsibility	-.038	.815	-.234	.141	.405**	.009
Physical Environment	.068	.675	-.293	.063	.039	.809
Occupational Roles Questionnaire	-.077	.634	-.388*	.012	-.137	.392
Vocational Strain	-.128	.424	-.252	.111	-.019	.908
Psychological Strain	.202	.205	-.028	.862	.127	.430
Interpersonal Strain	.346*	.026	-.251	.113	.112	.486
Physical Strain	.257	.105	-.076	.636	.273	.084
Personal Strain Questionnaire	.199	.212	-.202	.206	.152	.344
Recreation	-.339*	.030	.186	.243	-.419**	.006
Self-Care	.211	.186	.020	.901	-.006	.972
Social Support	-.322*	.040	.198	.215	.044	.785
Rational/Cognitive Coping	.043	.790	.125	.435	-.201	.208
Personal Resources Questionnaire	-.133	.409	.225	.157	-.263	.096

\* $p < .05$ ; \*\* $p < .01$

*Results corresponding to question three: What is the relationship of age, gender and intensity of trainees, and levels of 'hardiness'?*

Correlation test using point-biserial correlations for age, gender and intensity of therapist and the three components of 'hardiness' are presented in Table 5.

Table 5 shows that commitment ( $r_{pb} = .317$ ,  $p < 0.05$ ) significantly correlated with gender; and challenge, significantly correlated ( $r_{pb} = .591$ ,  $p < 0.01$ ) with intensity of therapist and age ( $r_{pb} = .341$ ,  $p < 0.05$ ). [See extended results 2.9 & 2.10] This indicates that females scored higher on the commitment component of 'hardiness' than males, high intensity trainees scored higher on the challenge

component than low intensity trainees and older trainees scored higher on the challenge component than younger trainees.

**Table 5: The relationship between age, gender, intensity of therapist and hardiness components using point-biserial correlation coefficients (n = 41)**

Hardiness	Age		Gender		Therapist	
	$r_{pb}$	p-value	$r_{pb}$	p-value	$r_{pb}$	p-value
Commitment	-.110	.493	.317*	.043	.219	.169
Control	.090	.577	.046	.773	.254	.109
Challenge	.341*	.029	-.032	.841	.591**	.000

\*  $p < .05$ ; \*\*  $p < .01$

Results corresponding with question four and five: What is the relationship of 'hardiness personality traits' and stress? Also can 'hardiness' predict stress levels?

A Spearman's correlation coefficient was initially run between overall ORQ and the three components of the 'hardiness' scale. This concluded that commitment ( $r_s = -.531$ ,  $p < 0.01$ ), control ( $r_s = -.380$ ,  $p < 0.01$ ) and challenge ( $r_s = -.198$ ,  $p > 0.05$ ) were all negatively correlated with ORQ, indicating that an increase in all three may result in a decrease in perceived stress. However, only commitment and control were significant, therefore challenge was not entered into the regression analysis. [See extended results 2.13]

Table 6 indicates that commitment ( $\beta = -.309$ ,  $p < 0.05$ ) and control ( $\beta = -.366$ ,  $p < 0.05$ ) were significant predictor variables of perceived stress (ORQ), indicating approximately 33% ( $R^2_{adj} = .290$ ,  $p < 0.01$ ) of the variance in ORQ scores.

**Table 6: Multiple regression analysis exploring commitment, control and challenge (components of hardiness) as predictors of ORQ**

	B	SE B	$\beta$
Constant	470.85	43.10	
Commitment	-2.95	1.404	-.309*
Control	-2.61	1.050	-.366*
$R^2 = .33$ *( $p < .05$ )			

## Discussion

The finding that 95.4% of participants reported normal levels of perceived total stress, with only 2.3% indicating mild levels of stress is inconsistent with previous studies exploring occupational stress in other mental health professional trainees. Trainee clinical psychologists (Cushway, 1992) and trainee counselling psychologists (Kumary & Baker, 2008), were found to have high occupational stress levels. A possible explanation for the present study's inconsistent findings with other trainee mental health professionals may relate to the differing roles employed by IAPT therapists, in comparison to the more traditional therapy roles (i.e., face-to-face contact) of counselling and/or clinical psychology trainees. IAPT trainees' roles are very specific within the NHS. Their

clinical role is relatively prescribed and set within restricted therapeutic models (namely CBT) and set parameters, with clear objectives and outcomes to be met. The role of a trainee clinical and counselling psychologist is arguably more vague and ambiguous. Both counselling and clinical psychology training leads to a Doctorate qualification after three years. In comparison, the IAPT training lasts one year and whilst there is currently no system in place to accredit low-intensity training programmes, high-intensity training leads to a post-graduate diploma from The British Association for Behavioural and Cognitive Psychotherapies (BACCP). It could be argued, that the academic demands placed on trainee IAPT therapists (in particular low-intensity therapists) are vastly different to those incurred for trainee counselling and clinical psychology trainees, which may account for the differences in stress levels between the three groups of professionals.

Role Boundary was identified as the highest source of perceived stress (i.e., achieved highest mean score, although still within normal range). According to Osipow (1998) high scores on the Role Boundary subscale indicates being caught between supervisory demands and factions, being unclear about authority lines and having more than one individual telling them what to do, which may be perceived as conflicting. It could be postulated that Role Boundary, as a source of perceived stress, was identified within this population as trainees are classified both as students and as employees within the NHS. Therefore, trainees have dual roles with dual authority lines and management. A trainee is governed by University regulations and is obliged to adhere to those regulations. However, trainees are also NHS employees, and are required to



follow NHS employment policies. Trainees are expected to meet all course demands, for example assignments deadlines, and also meet the demands of their clinical duties. There may be conflicts within these dual roles, with trainees perhaps struggling to balance and effectively manage the two roles.

The finding that Physical Strain was reported as the highest source of experienced strain may relate to what trainees may deem to be more socially acceptable. Even though mental health issues are more openly discussed in today's society, it would appear that there is still a social stigma attached (The Mental Health Foundation, 2000). Interestingly, many therapists do not admit to psychological difficulties due to fear of exposure, concerns about confidentiality and fear of professional censure (Deutsch, 1985). This may suggest, perhaps, that some mental health professionals would rather report physical complaints of stress i.e., headaches, colds, stomach upsets, to the psychological strain symptoms, as they may view such disclosures as a 'sign' of weakness and a failing on their part.

The finding that Social Support was the highest mean for coping resources is consistent with previous research. A recurring theme in occupational stress literature is that Social Support is associated with lower levels of stress (Papadomarkaki & Lewis, 2008). Cushway and Tyler (1994) asserted that the most effective coping response for clinical psychologists was talking to colleagues, and their friends and families. In addition Cushway (1992) reported that talking with others accounted for four out of the top five coping strategies reported by trainee clinical psychologists.

Significant gender differences were found relating to stress, with male participants scoring higher than female participants on Role Boundary and overall ORQ. This finding is inconsistent with previous research with trainee mental health professionals, who concluded that female participants reported higher stress levels than males (Cushway, 1992; Kumary & Baker, 2008). However, the present study's finding is consistent with Marini et al. (1995) who concluded that males scored higher than females on all but one subscale of the ORQ. Males within the present study accounted for 20.5% of the participants, which is a relatively low representation within the population and may have impacted on the findings. However, it is also possible that male trainees experienced more stress than female trainees. Currently, there is an imbalance between genders within the psychology profession, with females 'dominating' the occupation (Olos & Hoff, 2006). Previous research (Davidson & Fielden, 1999) has identified key sources of stress that are pertinent to working females in a male-dominated workforce. Occupational stressors related to discrimination and prejudice (i.e., career blocks, sexual harassment) and being 'token' females who work in non-traditional jobs (i.e., male-dominated organisational structures and climates, performance pressure, gender stereotyping, isolation, lack of role models). However, it could be argued that males working in female-dominated workforce experience similar stress and may explain why males in the present study scored higher than females on stress subscales.

In addition, gender is a socially constructed category and there are different expectations for males and females in society, which, in turn, can have an impact on their perceived experiences of stress (Iwasaki, Mackay & Ristock,

2004). Males and females may attach different meanings and definitions to stress (Liu, Spector & Shi, 2008), which may have resulted in the current findings. However, Moffatt, McConnachie, Ross and Morrison (2004) have concluded that male and female differences in self-reported stress, requires further investigation, which considering the present study's inconsistent findings with previous research with trainee mental health professionals, would be a valid and justified future research suggestion.

No significant difference was found between age of trainee and stress, which is consistent with Cushway's (1992) study exploring stress and trainee clinical psychologists and also with other studies (Fogerty et al., 1999; Richard & Krieshok, 1989) that utilised the OSI-R (Osipow, 1998). Age could be viewed as an arbitrary construct and does not take into consideration or indeed reflect an individual's life and clinical experience.

Significant differences were found between low-intensity and high-intensity trainees on several stress subscales. Low-intensity trainees scored significantly higher than high-intensity therapists on the Role Insufficiency stress subscale. According to Osipow (1998) high scorers on Role Insufficiency may indicate poor fit between skills and performance. They may also report that their career is not progressing and has little future. In addition they may also feel bored and/or underutilised. Low-intensity trainees assess and support clients in the self-management of their recovery, which can be delivered through face-to-face, telephone or email contact. It is possible that low-intensity trainees have gained some experience of traditional clinical experiences/skills prior to enrolling on the

programme and they feel they are not using their prior clinical knowledge/skills to good effect, particularly if they are involved in a high volume of telephone and email contacts, and not the traditional method of face-to face clinical contact.

High-intensity trainees scored significantly higher than low-intensity trainees on the perceived stress subscale Responsibility. This is an expected finding, as high-intensity trainees are given more responsibility than low-intensity trainees, dealing with complex issues and taking personal responsibility for clinical decision making (Department of Health, 2008a).

Low-intensity trainees scored significantly higher than high-intensity trainees on the recreational coping subscale. It could be postulated that as high-intensity trainees are 'older' (mean age 36.6 years old) they may be more likely to have more family demands (i.e., dependents) and may not have the time to engage in recreational activities.

Females scored higher on the commitment component of 'hardiness' than males. It could be hypothesised that females may be higher on 'commitment' due to gender stereotyping by society and the 'dual' roles that now appear to be expected of females (i.e., mother and successful employee). It could be postulated that females may feel that to create meaning and a sense of purpose in both roles you need to become actively involved, rather than be passively uninvolved. The finding that high-intensity trainees scored higher than low-intensity trainees and 'older trainees' scored higher than 'younger trainees' on the challenge component, may be accounted for high-intensity trainees being

'older' and are more likely to have had a longer employment history and experienced change more often within an organisation. Therefore they may have become 'accustomed' to a changing work environment, and viewing change as a necessary process within an organisation.

Commitment and control components of 'hardiness' were significantly correlated to perceived stress and accounted for 33% of variance in stress levels, which is consistent with studies that have explored 'hardiness' and stress in the nursing profession (Ford-Gilboe & Cohen, 2000; Keane, Ducette & Adler, 1985). An individual committed to their job will tend to identify with events and co-workers, which is likely to improve work as the job. An individual's tendency to feel that they have influence or control in a given situation may prevent them from perceiving the work place as ambiguous or unclear (Turnipseed, 1999). Other research (Turnipseed, 1999; Wiebe, 1991) also, did not find a significant link between the 'hardiness' component of challenge and occupational stress. [See extended discussion 3.1 & 3.2]

### *Limitations*

During the time that the present study was conducted, approximately 1,435 IAPT trainees were on the training programme across England (Department of Health, 2008b). However, this study recruited 44 trainees (out of a possible sampling frame of 60), which may limit the ability to generalise the findings. Another limitation of the present study was its reliance on self-report measures. [See extended discussion 3.3] In addition, age may have potentially acted as a

confounding variable within the study, as high-intensity therapists had a higher age range (36.6 years old) than low-intensity therapists (30.7 years old).

### *Implications*

Research (Payne & Firth-Cozens, 1987) has argued that coping skills should be part of training. Considering that only a small percentage of participants (2.3%) reported strong coping resources and 6.9% reported mild maladaptive levels of overall coping, developing and/or enhancing coping skills may be a useful component within the IAPT training programme. Maddi et al. (1998) argue that 'hardiness' is something that an individual can learn and considering the finding from the present study that there is a negative relationship between 'hardiness' and stress, this may also be an element that could be incorporated into the IAPT training programme. Due to the relative absence of perceived stress and strain within this sample, questions need to be asked regarding what is the IAPT training programme doing that other mental health professional training programmes could learn from. Could it be that the IAPT training programme creates the 'right' learning environment and creates an environment that promotes personal well-being, whilst normalising and acknowledging and supporting trainees through their training? Or is the lack of perceived stress and experienced strain a result of the robust structure and remit of the IAPT training course and overall IAPT service? *[See extended discussion 3.5]*

### *Further research*

Although a 73% response rate was achieved, the sample size was small which limits the ability to generalise findings. Further research incorporating a larger

representation of IAPT trainees across England would be useful. Furthermore, a multicultural representation of trainees should be sought in order to examine potential differences among stress, strain and coping. A qualitative component exploring the areas investigated in more depth may be beneficial. Finally, it may be informative to follow trainees after they have qualified, to examine the transition to professional practice, and the processes of adjustment and personal and professional development (Brooks et al., 2002). *[See extended discussion 3.4]*

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<http://www.mentalhealth.org.uk/publications/?entryid5=43575&p=2&char=>

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Truell, R. (2001). The stresses of learning counselling: six recent graduates comment on their personal experience of learning counselling and what can be done to reduce associated harm. *Counselling Psychology Quarterly*, 14(1), 67-89.

Turnipseed, D.L. (1999). An exploratory study of the hardy personality at work in the health care industry. *Psychological Reports*, 85(3), 1199-1217.

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Wall, T.D., Bolden, R.I., Borrill, C.S., Carter, A.J., Golya, D.A., Hardy, G.E., et al. (1997). Minor psychiatric disorders in NHS Trust staff: Occupational and gender differences. *British Journal of Psychiatry*, 171, 519–523.

Westman, M. (1990). The relationship between stress and performance: The moderating effects of hardiness. *Human Performance*, 3, 141–155.

Wiebe, D.J. (1991). Hardiness and stress moderation: A test of proposed mechanisms. *Journal of Personality and Social Psychology*, 60, 89–99.

Appendix a – Author guidelines for submitting a paper to the Journal of British  
Clinical Psychology

The British Journal of Clinical Psychology publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour through to studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis.

The following types of paper are invited:

- Papers reporting original empirical investigations
- Theoretical papers, provided that these are sufficiently related to the empirical data
- Review articles which need not be exhaustive but which should give an interpretation of the state of the research in a given field and, where appropriate, identify its clinical implications
- Brief reports and comments

## **1. Circulation**

The circulation of the Journal is worldwide. Papers are invited and encouraged from authors throughout the world.

## **2. Length**

Papers should normally be no more than 5000 words, although the Editor retains discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length.

## **3. Submission and reviewing**

All manuscripts must be submitted via our online peer review system. The Journal operates a policy of anonymous peer review.

## **4. Manuscript requirements**

- Contributions must be typed in double spacing with wide margins. All sheets must be numbered.
- Tables should be typed in double spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript with their approximate locations indicated in the text.
- Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be listed on a separate sheet. The resolution of digital images must be at least 300 dpi.
- For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use

these headings: Purpose, Methods, Results, Conclusions. Please see the document below for further details:

- For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full.
- SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.
- In normal circumstances, effect size should be incorporated.
- Authors are requested to avoid the use of sexist language.
- Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright.

For guidelines on editorial style, please consult the APA Publication Manual published by the American Psychological Association.


## **5. Brief reports and comments**

These allow publication of research studies and theoretical, critical or review comments with an essential contribution to make. They should be limited to 2000 words, including references. The abstract should not exceed 120 words and should be structured under these headings: Objective, Method, Results, Conclusions. There should be no more than one table or figure, which should only be included if it conveys information more efficiently than the text. Title, author name and address are not included in the word limit.

## **6. Publication ethics**

All submissions should follow the ethical submission guidelines outlined the documents below:

 Ethical Publishing Principles – A Guideline for Authors

 Code of Ethics and Conduct (2006)

## **7. Supplementary data**

Supplementary data too extensive for publication may be deposited with the British Library Document Supply Centre. Such material includes numerical data, computer programs, fuller details of case studies and experimental techniques. The material should be submitted to the Editor together with the article, for simultaneous refereeing.

## **8. Copyright**

On acceptance of a paper submitted to a journal, authors will be requested to sign an appropriate assignment of copyright form. To find out more, please see our Copyright Information for Authors.

### **Structured abstracts – The British Journal of Clinical Psychology**

Authors should note that all papers submitted to the British Journal of Clinical Psychology must include structured abstracts. Papers will not be considered for publication unless they have a structured abstract in the correct format.



Articles containing original scientific research should include a structured abstract with the following headings and information:

**Objectives.** State the primary objectives of the paper and the major hypothesis tested (if appropriate).

**Design.** Describe the design of the study and describe the principal reasoning for the procedures adopted.

**Methods.** State the procedures used, including the selection and numbers of participants, the interventions or experimental manipulations, and the primary outcome measures.

**Results.** State the main results of the study. Numerical data may be included but should be kept to a minimum.

**Conclusions.** State the conclusions that can be drawn from the data provided and their clinical implications (if appropriate).

Retrieved August 19, 2009 from

<http://www.bpsjournals.co.uk/journals/bjcp/notes-for-contributors.cfm>

Appendix b – Ethical consent letters  
(i) NRES



**National Research Ethics Service**  
**Leicestershire, Northamptonshire & Rutland Research Ethics Committee 2**

1 Standard Court  
Park Row  
Nottingham  
NG1 6GN

Telephone: 0115 8839428  
Facsimile: 0115 9123300

02 March 2009

Miss Laura McAuley  
Court 11, Satellite Building 8  
Faculty of Health, Life & Social  
Sciences, University of Lincoln.  
LN6 7TS

Dear Miss McAuley

**Full title of study:** Occupational stress and hardiness personality traits:  
Trainee IAPT Therapists providing care in the modern  
NHS

**REC reference number:** 09/H0402/18

The Research Ethics Committee reviewed the above application at the meeting held on 19 February 2009.

**Documents reviewed**

The documents reviewed at the meeting were:

Document	Version	Date
Covering Letter		11 February 2009
Protocol	1	02 February 2009
Investigator CV		16 December 2008
Application	AB/145668/1	11 February 2009
Participant Consent Form	1	02 February 2009
Participant Information Sheet	1	02 February 2009
Questionnaire: Demographic Information Sheet	1	02 February 2009
Questionnaire: OSI-R		
Compensation Arrangements		13 August 2008
Investigator CV		

**Provisional opinion**

The Committee would be content to give a favourable ethical opinion of the research, subject to receiving a complete response to the request for further information set out below.

The Committee delegated authority to confirm its final opinion on the application to the Chair.

This Research Ethics Committee is an advisory committee to East Midlands Strategic Health Authority.  
The National Research Ethics Service (NRES) represents the NRES Directorate within the  
National Patient Safety Agency and Research Ethics Committees in England.

### Further information or clarification required

1. The Committee decided that as the questionnaires are anonymous a consent form is not required; return of the questionnaires is consent. The removal of the consent form will also ensure that there are no issues of confidentiality of data or identification of participants.
2. The Committee required an explanation of what the researcher will do if she does not have enough responses to complete the study. For example would another site visit be made?
3. The Committee requested the following changes / amendments to the participant information sheet:
  - a. All references to the consent form should be reworded as this is not required. An explanation that return of the questionnaire is consent should be included with assurances that participants cannot be identified.
  - b. Under 'Do I have to take part?' the sentence 'You are free to withdraw from the study at any time, without giving a reason' should be reworded. As the questionnaires are anonymous the participant cannot ask for them to be withdrawn after they are returned to the researcher.
  - c. Under 'What if there is a problem?' the guidance on complaints should be followed, for example;  
*A contact number should be given. This may be the researcher, who can try to solve the problem in the first instance. However, a participant may not wish to complain to the researcher if he/she is the object of the complaint, and may wish to make a more formal complaint. If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions (contact number). If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure. Details can be obtained from the hospital.*
6. The information regarding further support from Occupational Health should be separated from that on complaints so that it is easier for participants to find.

When submitting your response to the Committee, please send revised documentation where appropriate underlining or otherwise highlighting the changes you have made and giving revised version numbers and dates. It would help to speed up review of your response if you would email your response as well as sending a hard copy.

The Committee will confirm the final ethical opinion within a maximum of 60 days from the date of initial receipt of the application, excluding the time taken by you to respond fully to the above points. A response should be submitted by no later than 30 June 2009.

### Ethical review of research sites

The Committee agreed that all sites in this study should be exempt from site-specific assessment (SSA). There is no need to submit the Site-Specific Information Form to any Research Ethics Committee. However, all researchers and local research collaborators who intend to participate in this study at NHS sites should seek approval from the R&D office for the relevant care organisation.

### Membership of the Committee

The members of the Committee who were present at the meeting are listed on the attached sheet.

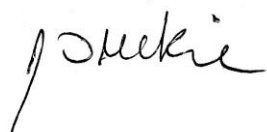


**Statement of compliance**

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

**09/H0402/18****Please quote this number on all correspondence**

Yours sincerely



**Mr Ken Willis / Miss Jeannie D McKie**  
**Chair / Committee Coordinator**

Email: jeannie.mckie@nottspct.nhs.uk

*Enclosures: List of names and professions of members who were present at the meeting and those who submitted written comments.*

*Copy to: Dr Mark Gresswell  
R&D Department for NHS care organisation at lead site – United  
Lincolnshire*

13 March 2009

National Research Ethics Service  
Leicestershire, Northamptonshire & Rutland  
Research Ethics, Committee 2  
1 Standard Court  
Park Row  
Nottingham  
NG1 6GN

Dear Committee

**Full title of study:** Occupational stress and hardiness personality traits:  
Trainee IAPT therapists providing care in  
the  
modern NHS.  
**REC reference no:** 09/H0402/18

Please find detailed below my response to your request for further information in your letter dated 02 March 2009. I have enclosed the amended participant information sheet (Version: 2, date: 13.03.09), highlighting the changes that have been made.

1. The consent form has been removed.
2. All questionnaires completed and returned within a two month period will be included in the study. In order to ensure that enough responses are obtained, the researcher will visit the site after one month to remind participants of the study.
3. The following changes/amendments have been made to the participant information sheet:
  - a) All references to the consent form have been removed. An explanation that return of the questionnaire is consent has been included, with assurances that participants cannot be identified.
  - b) Under 'Do I have to take part?' the sentence 'You are free to withdraw from the study at any time, without giving a reason' has been reworded.
  - c) Under 'What if there is a problem', the guidance on complaints has been followed.
  - d) The information regarding further support from Occupational Health has been separated from that on complaints.

I trust that the above information satisfies the requests of the committee. Please contact me if any further information is required.

Kind regards

Laura McAuley

## National Research Ethics Service

### Leicestershire, Northamptonshire & Rutland Research Ethics Committee 2

1 Standard Court  
Park Row  
Nottingham  
NG1 6GN

Telephone: 0115 8839428  
Facsimile: 0115 9123300

20 March 2009

Miss Laura McAuley  
Trainee Clinical Psychologist  
University of Lincoln  
Court 11, Satellite Building 8  
Faculty of Health, Life & Social Sciences  
University of Lincoln  
LN6 7TS

Dear Miss McAuley

**Full title of study:** Occupational stress and hardiness personality traits:  
Trainee IAPT Therapists providing care in the modern  
NHS

**REC reference number:** 09/H0402/18

Thank you for your letter of 13 March 2009, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

#### Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

#### Ethical review of research sites

The Committee has designated this study as exempt from site-specific assessment (SSA). The favourable opinion for the study applies to all sites involved in the research. There is no requirement for other Local Research Ethics Committees to be informed or SSA to be carried out at each site.

#### Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission at NHS sites ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

This Research Ethics Committee is an advisory committee to East Midlands Strategic Health Authority. The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England.



## Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Covering Letter		11 February 2009
Protocol	1	02 February 2009
Investigator CV		16 December 2008
Application	AB/145668/1	11 February 2009
Questionnaire: Demographic Information Sheet	1	02 February 2009
Questionnaire: OSI-R		
Compensation Arrangements		13 August 2008
Investigator CV		
Response to Request for Further Information		13 March 2009
Participant Information Sheet	2	13 March 2009

## Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

## After ethical review

Now that you have completed the application process please visit the National Research Ethics Website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review –guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email [referencegroup@nres.npsa.nhs.uk](mailto:referencegroup@nres.npsa.nhs.uk).

With the Committee's best wishes for the success of this project

Yours sincerely



<sup>pp</sup>  
**Mr Ken Willis/Miss Jeannie McKie**  
**Chair/Committee Co-ordinator**

Email: jeannie.mckie@nottspct.nhs.uk

*Enclosures:* "After ethical review – guidance for researchers"

*Copy to:* Dr Mark Gresswell  
R&D office for NHS care organisation at lead site – United  
Lincolnshire

Trent Doctorate in Clinical Psychology  
Court 11, Satellite Building 8  
University of Lincoln  
Brayford Pool  
Lincoln LN6 7TS

19<sup>th</sup> June 2009.

1 Standard Court  
Park Row  
Nottingham  
NG1 6GN

Dear Miss

**Full title of study: Occupational stress and hardiness personality traits: Trainee IAPT Therapists providing care in the modern NHS**

**REC reference number: 09/H0402/18**

I am pleased to inform you that the (above study) has now also been given full approval by the University of Lincoln and Lincoln and Lincolnshire Partnership Foundation Trust (LPFT) R&D departments. However, due to unforeseen delays regarding the process of obtaining approval from University of Lincoln and LPFT the following minor amendment is required to the methodology part of study.

It states in my NRES application that: ***'The chief investigator will attend a number of teaching sessions (where both Nottingham City PCT and LPFT IAPT trainee therapists are taught together) to introduce the study and hand out information sheets. Questionnaire packs will then be placed in a box within their teaching rooms and participants can take a pack to complete if they are interested. A further box will be available for completed questionnaire packs.'***

Unfortunately due to the delays in gaining ethics and R&D approvals mentioned above the potential 2008 LPFT & Nottingham cohort trainees have already finished their training and cannot now be approached in the way originally envisaged – only the 2009 low intensity (LPFT & Nottingham cohort) trainees are still in formal teaching. For the trainees who have completed their formal teaching blocks (but who are still enrolled on the IAPT programme) it is proposed that the chief investigator will now recruit trainees either via their supervision sessions or team meetings. In this case, potential participants (2008 LPFT & Nottingham City PCT trainees who have completed their formal teaching) will be approached by the chief investigator who will attend supervision sessions/team meetings to introduce the study and to hand out information sheets. Trainee IAPT therapists will opt-in to the study if they wish to participate. The chief investigator will place a box with questionnaire packs in the supervision /team meeting room, leave the room and allow potential participants to take a pack to complete if they are interested. Completed questionnaires will be placed in a sealed envelope and placed in a sealed box which the chief investigator will collect later and only open at the end of the study. In this way participant anonymity will be maintained.

It is not expected that this minor change in methodology will place the potential participants under any additional pressure, should not increase the risk of participants becoming distressed nor should it distort the responses/results of the investigation.

I would be very grateful if you would arrange for the amendment outlined above to be considered by the Chair or full committee as deemed appropriate. I enclose a full set of paperwork in support of the application.

With best wishes

Yours sincerely

Laura McAuley  
**Trainee Clinical Psychologist**

Cc

**Dr C Brady** General Manager Psychological Therapies and Primary Care, Trust Professional Lead for Psychological Therapies Lincolnshire Partnership Foundation NHS Trust

**Dr M Gresswell** Head of Adult Psychology Specialty (Lincolnshire Partnership NHS Foundation Trust) Deputy Director, Trent Clinical Psychology Training Programme



## National Research Ethics Service

### Leicestershire, Northamptonshire & Rutland Research Ethics Committee 2

1 Standard Court  
Park Row  
Nottingham  
NG1 6GN

Tel: 0115 8839428  
Fax: 0115 9123300

26 June 2009

Miss Laura McAuley  
Trainee Clinical Psychologist  
Court 11, Satellite Building 8  
Faculty of Health, Life & Social  
Sciences, University of Lincoln.  
LN6 7TS

Dear Miss McAuley

**Study title:** Occupational stress and hardiness personality traits:  
Trainee IAPT Therapists providing care in the modern  
NHS  
**REC reference:** 09/H0402/18  
**Protocol number:** 1  
**Amendment number:** 1  
**Amendment date:** 19 June 2009

Thank you for your letter of 19 June 2009, notifying the Committee of the above amendment.

The amendment has been considered by the Chair.

The Committee does not consider this to be a "substantial amendment" as defined in the Standard Operating Procedures for Research Ethics Committees. The amendment does not therefore require an ethical opinion from the Committee and may be implemented immediately, provided that it does not affect the approval for the research given by the R&D office for the relevant NHS care organisation.

#### Documents received

The documents received were as follows:

Document	Version	Date
Demographics Information	3	19 June 2009
Notification of a Minor Amendment	1	19 June 2009
Participant Information Sheet	3	19 June 2009

This Research Ethics Committee is an advisory committee to East Midlands Strategic Health Authority.  
The National Research Ethics Service (NRES) represents the NRES Directorate within the  
National Patient Safety Agency and Research Ethics Committees in England.

### **Statement of compliance**

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

09/H0402/18:

**Please quote this number on all correspondence**

Yours sincerely



**Miss Jeannie D McKie**  
**Committee Co-ordinator**

E-mail: [jeannie.mckie@nottspct.nhs.uk](mailto:jeannie.mckie@nottspct.nhs.uk)

Copy to:

*Dr Mark Gresswell*  
*R&D office for NHS care organisation at lead site – United*  
*Lincolnshire*

Appendix b – Ethical consent letters  
(ii) Lincolnshire Partnership Foundation Trust – Research and Development  
Organisational Approval

Date: 12 June 2009

Research and Effectiveness Department  
Lincolnshire Partnership NHS  
Foundation Trust  
c/o: CCAWI Suite  
MHAC Building (3<sup>rd</sup> Floor)  
University of Lincoln  
Brayford Pool  
Lincoln  
LN6 7TS

Miss Laura McAuley  
Court 11, Satellite Building 8  
Faculty of Health, Life and Social Sciences  
University of Lincoln  
LN6 7TS

Tel: 01522 837032

Email: Dianne.Tetley@lpt.nhs.uk

Dear miss Laura McAuley

**Re: Trust Approval for Research Study titled Occupational Stress and Hardiness Personality Traits: Trainee IAPT Therapists providing care in the modern NHS**

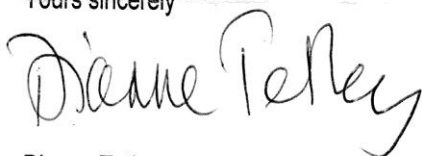
**Project Reference: 09/H0402/18**

In addition to your approval by the Leicestershire, Northamptonshire & Rutland Research Ethics Committee (20 March 2009), we are pleased to notify you that Trust approval has now also been granted. We are pleased to inform you that you may now commence your research. Please retain this letter to verify that you have Trust approval to proceed.

We may contact you from time to time to monitor progress with your work. If the research is terminated or you complete this work, please let the Research and Effectiveness Department know so they can amend their records.

Do contact us if you require any further advice. We wish you every success with your work.

Yours sincerely



Dianne Tetley  
Assistant Director for Research and Effectiveness

Enc: Data Protection Guidance on the transportation of personal identifiable data



Appendix b – Ethical consent letters  
(iii) Nottingham City Primary Care Trust - Research and Development  
Organisational Approval

Nottinghamshire County Teaching PCT  
Research and Evaluation  
Birch House  
Ransom Wood Business Park  
Southwell Road West  
Rainworth  
Nottinghamshire  
NG21 0HJ

Tel: 01623 673338  
Fax: 01623 673340  
[www.rdnottspct.nhs.uk](http://www.rdnottspct.nhs.uk)

30<sup>th</sup> June 2009

Miss Laura McAuley  
Trainee Clinical Psychologist  
University of Lincoln  
Court 11, Satellite Building 8  
Faculty of Health, Life and Social Sciences  
Lincoln  
LN6 7TS

Dear Miss McAuley

**Ethics Reference Number: 09/H0402/18**  
**Project Title: Occupational stress and hardiness personality traits: Trainee IAPT**  
**Therapists providing care in the modern NHS**

Thank you for submitting the above project to the NHS Nottinghamshire County Research and Evaluation Department. The project has now been given Organisational Approval by:

Dr Chris Packham, R & D Lead, on behalf of NHS Nottingham City

Although Organisational approval has been given for this study it does not guarantee that independent contractors such as GPs, dentists, optometrists and community pharmacists will be able to take part in your study.

### **Conditions of approval**

***Please note that approval for this study is dependent on full compliance with the following. To that end, please complete and return the form attached to this letter confirming your acceptance of these terms and conditions:***

- You are required to ensure that all information regarding patients or staff remains secure and **strictly confidential** at all times. You must ensure that you understand and comply with the requirements of the NHS Confidentiality Code of Practice (<http://www.dh.gov.uk/assetRoot/04/06/92/54/04069254.pdf>) and the Data Protection Act (1998). Furthermore, you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.
- You must not hold person identifiable data on portable media unless it is encrypted. Protecting data files with passwords does not constitute encryption
- To complete yearly/final reports as requested, and to feedback study findings to the Research and Development Department and participants (as appropriate)
- To endeavor to publish and/or disseminate research findings on completion of the project
- To inform the Research and Development Department of any changes that occur, e.g. amendments to approved documentation, project not started for any reason, change in personnel etc
- That you inform the Research and Development Department which GP Practices you have recruited to your study from the Nottinghamshire PCTs (where applicable)
- That you inform the Research and Development Department of all serious adverse incidents<sup>1</sup> in accordance with Trust Policy and/or Legal requirements (e.g. Sponsor, MHRA). This is in addition to the reporting of serious or unexpected adverse events and adverse drug reactions (which may affect the conduct and continuation of the study) to the approving research ethics committee
- That you are aware of and comply with the PCT Research and Development Policies and Best Practice Guidance<sup>2</sup>
- That you agree to cooperate with a Research Governance Audit of the project if requested by the Research and Development Department
- That you have read and agree to abide by the Research Governance Framework (RGF) for Health and Social Care (second edition 2005)

---

<sup>1</sup> Refer to Nottinghamshire PCTs Adverse Event Reporting Policy in Research for definitions - [www.rdnottspct.nhs.uk](http://www.rdnottspct.nhs.uk)

<sup>2</sup> Policy for Adverse Event Reporting in Research

Research Fraud and Misconduct Policy

Policy for the Management of Trust Generated Intellectual Property

Best Practice Guidance: Data Management in Research

[www.rdnottspct.nhs.uk](http://www.rdnottspct.nhs.uk)

The *Research Governance Framework for Health & Social Care* sets out the responsibilities of all those involved in research in order to enhance the ethical and scientific quality of health research and to safeguard patients and the public. The lead investigator and all involved in the research have a responsibility to comply with Research Governance.

Full details can be found in the RGF document available at [www.dh.gov.uk](http://www.dh.gov.uk) or via the Research and Evaluation Department.

Yours sincerely,



Rachel Illingworth  
Head of Research and Evaluation

Copy to  
R&D leads  
Ethics  
Dr Mark Gresswell, Academic Supervisor

Appendix b – Ethical consent letters  
(iv) University of Lincoln Ethical Approval for Human Research Projects

**Laura Mcauley (07091805)**

---

**From:** Emile van der Zee **Sent:** Fri 06/11/2009 00:01  
**To:** Laura Mcauley (07091805)  
**Cc:**  
**Subject:** RE: Ethics Application  
**Attachments:**

Dear Laura,

this is to confirm that you received ethical approval for your project "Occupational stress and hardiness personality traits" on 5-6-09 from the School of Psychology's Ethics Committee. All my best,

Emile

Emile van der Zee PhD  
Principal Lecturer in Psychology  
Programme director of the MSc in Child Studies  
University of Lincoln  
Lincoln LN6 7TS  
evanderzee@lincoln.ac.uk  
<http://www.lincoln.ac.uk/psychology/staff/683.asp>

---

**From:** Laura Mcauley (07091805)  
**Sent:** Thu 22/10/2009 07:54  
**To:** Emile van der Zee  
**Subject:** RE: Ethics Application

Hi Emile  
Would it be possible if you could send me a letter to confirm that I have received ethical approval from the University (just need something official as I need to enclose it in my thesis).  
Many thanks.  
Best wishes,  
Laura

---

**From:** Emile van der Zee  
**Sent:** Wed 03/06/2009 16:16  
**To:** Laura Mcauley (07091805)  
**Subject:** Ethics Application

Dear Laura,

Please find attached the feedback from the ethics committee. As soon as I get a reply from you I'll try to process it by chair's action in order not to delay things further. I'm sorry it has taken this much time, all my best,

Emile

## **1. Extended Background**

### **1.1. Definitions and theoretical approaches of stress**

Within the general population stress is viewed as something negative, harmful or unwanted (Keil, 2004), yet some stress responses elicit positive benefits (Bartlett, 1998) such as creativity, flow, motivation and active learning (Amabile, Barsade, Mueller & Staw, 2005; Seligman & Csikszentmihalyi, 2000).

Although the stress construct has generated a great deal of investigation, a common definition is far from obvious (Richard & Krieshok, 1989). Confusion permeates much of the literature on stress, with researchers disagreeing on a universal definition and meaning of the term (Marmot & Madge, 1987). At different points in time, particular models of stress have found favour within research endeavours. An early contribution to stress research was the Yerkes-Dodson Law, first formulated in 1908 (cited in Cooper, Cooper & Eaker, 1988). This proposed an association between arousal and performance, arguing that up to a certain point, arousal increases performance, but after an optimum point, performance levels drop as arousal increases.

Selye (1956) is often regarded as the pioneer of stress research. As a biologist he researched an individual's physiological reaction to stress and defined it as 'the nonspecific response of the body to any demand' (p.55) placed upon it, whether external or internal. Selye (1956) went on to develop his theory of the General Adaptation Syndrome (GAS) which he described as having three stages; alarm reaction, stage of resistance and stage of exhaustion. According to Selye, when a stressor occurs, the body's resistance initially drops, then rises

sharply. The body's resistance stays high throughout the second stage, but ultimately cannot be sustained and drops in the exhaustion stage. However, if a second stressor is added to the first original stressor, resistance is lowered throughout and the exhaustion stage is reached sooner.

In the alarm reaction stage, there is a brief period of lowered resistance followed by a time of heightened arousal, which involves the body preparing itself for a rapid response. The sympathetic nervous system becomes involved at this stage, in order to provide the body with defences to combat the stressor.

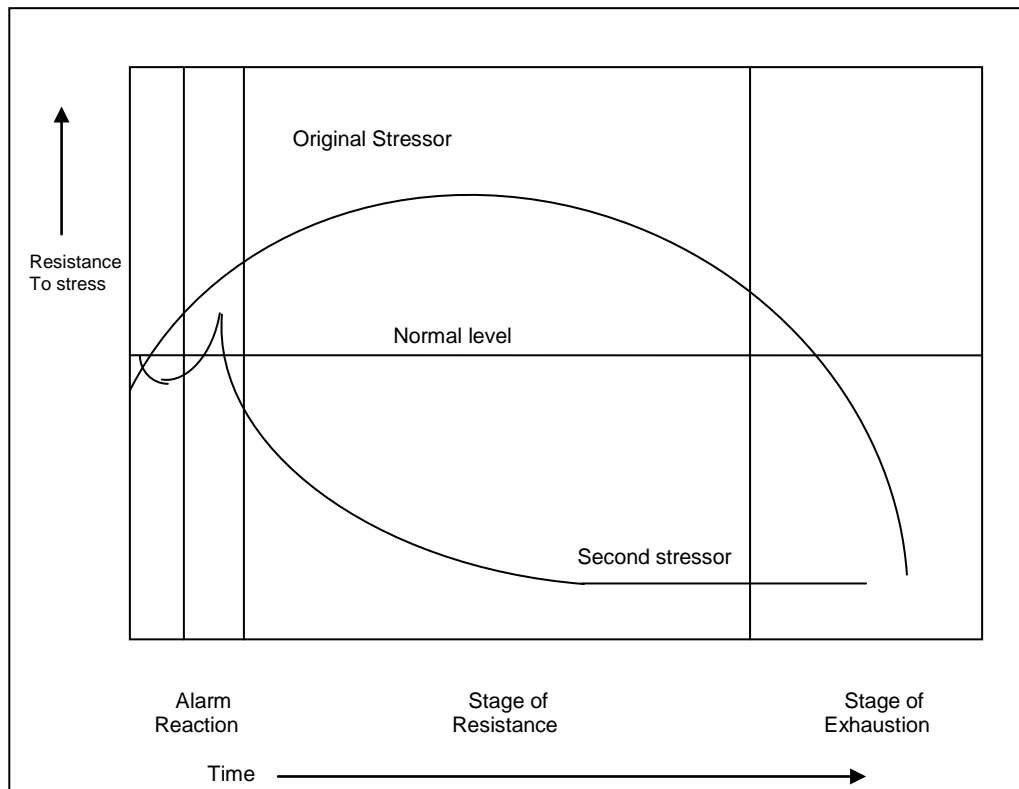
The second stage, resistance, replaces the alarm phase with responses that promote long-term adaption. The individual's body continues to adapt to the stressor during this second stage, although this may be at an unconscious level.

In the final stage of exhaustion, the individual will become exhausted if the stressor has been particularly severe and prolonged and the body cannot go resisting indefinitely (Selye, 1980).

Selye (1956) also made a distinction between the effects of different types of stress. He classified 'eustress' as harmless or beneficial stress and 'distress' as harmful or bad stress. Gray (1991) diagrammatically illustrates Selye's GAS model in Figure 8.



**Figure 8: Selye's General Adaptation Syndrome (GAS)**



Although Selye's model has been the inspiration for later stress researchers, and has been instrumental in contributing to the development of understanding of the stress construct, it has also received much criticism. At a very basic level, Selye's model has the fundamental weakness of being essentially a static model, assuming that all individuals pass through the three stages in order. Secondly, Selye's GAS model provides a limited role of psychological factors in the mediation of the stress response. The non-specific response assumption of Selye's model suggests that all stressors produce the same bodily response in all individuals; however there is increasing evidence to suggest that specific stressors produce distinct endocrinological responses in individuals. Stress research has provided evidence to suggest that an individuals' response to stress is mediated by their personalities, their perception and biological

makeup, factors that Selye's model appeared to overlook. Another criticism relates to Selye assuming that individuals respond in a passive manner to stressors. However, many have argued that there is an active process of psychological appraisal when individuals confront a stressor. In addition, Selye has been criticised for using animals to support his research on human responses to stress. This may explain why his model overemphasises physiological factors at the expense of psychological factors (Lazarus & Folkman 1984; Mason, 1975).

In an attempt to organise the numerous definitions and theories of stress, several researchers (Ghadially & Kumar, 1987; Richard & Krieschok, 1989) have suggested that there are at least three distinct theoretical approaches to stress: stimulus based, response-based and interactional theories.

### **1.1.(i) Stimulus-based theories**

Stimulus-based theories relate to the concept of stress taken from the physical sciences, in which stress is viewed as an event, either internal or external, that impinges on the individual (Richard & Krieschok, 1989). Stimulus-based stress theorists believe that factors in the environment exert an influence on an individual (Derogatis & Coons, 1993; Lazarus & Folkman, 1984). This model proposes that external stressors in the environment result in a stress reaction. In addition, Lazarus and Folkman (1984) argued that the duration of the stressor and whether it was chronic or acute, also needed to be considered.

### **1.1.(ii) Response-based theories**

Response-based theories of stress are most popularly represented by Selye (1956). This model views stress as a psychological or physiological reaction to a stressor or stressors. Factors which influence individual differences in response to stress include: genetic (physique, gender, intelligence); acquired (education, age, social class) and trait-anxiety (type A behaviour, self esteem, locus of control, flexibility, and extroversion/introversion) (Payne, 2001).

The stimulus and response-based theories have been widely criticised for (i) their inability to account for existing data through acknowledgement of individual differences and contextual factors and (ii) their implicit suggestion that a certain level of stress might be good for individuals. Furthermore, it has been suggested that the focus on individual responses within the response-based approach has lead to a narrowing of focus within stress management activities; a perspective that may encourage individual stress interventions and overlook the organisational context (Cox, 1993).

Contemporary theories of stress predominately fall within interactional models, focusing on the interaction between the individual and the environment, and on the structure of that interaction.

### **1.1.(iii) Interactional theories**

According to an interactional theory of stress, both the individual and the environment are determinants in the stress reaction (Derogatis & Coon, 1993). The individual, along with their particular cognitive, emotional and physiological

characteristics, is seen as an important mediator between the environmental stimulus and the stress response. According to Derogatis and Coon (1993), Lazarus and Folkman (1984) provide the most popular interactional theory of stress. Lazarus and Folkman (1984) contended that there are three components involved in the stress reaction: the stressor, the individual's perception or appraisal of the stressor and the individual's evaluation of their coping resources.

Fogerty et al. (1999) concluded from four separate studies that stress and coping variables were able to significantly predict the amount of variance in strain.

## **1.2. Appraisal**

The interactional theory of stress distinguishes two processes which ameliorate stress. Cognitive appraisal and coping act as critical mediators of stressful person-environment relations and their immediate stress outcomes (Lazarus & Folkman, 1984).

Cognitive appraisal refers to the process in which the individual evaluates whether a particular encounter with the environment is relevant to his or her well being and in what way it is relevant (Folkman & Lazarus, 1988). This involves primary appraisal, which requires the individual assessing whether they are at risk in a stressful encounter and secondary appraisal enables the individual to determine what coping options are available (Rodney, 2000). According to Folkman & Lazarus (1988) the interplay between primary and secondary

appraisal is complex and bidirectional, and further identified the processes of reappraisal, which they defined as a changed appraisal based on new information.

### **1.3. Coping**

Coping is usually defined as the efforts made to manage specific external and/or internal demands that are appraised as exceeding an individual's resources (Rodney, 2000). According to Lazarus and Folkman (1984) there are two distinct categories of coping strategies: problem- focused techniques (attempts to solve the problem) and emotion-focused techniques (attempts to reduce emotional discomfort rather than altering the source of the discomfort). They considered that coping was a process that changed over time and across situations, but others have seen it more in personality 'trait' terms (Heth & Somer, 2002), in which personality is one of the factors that can influence coping (Keil, 2004).

Osipow (1998) proposed an interactive orientation, which assumes that coping plays an integral role in the effect stress has upon strain. Within the Occupational Stress Inventory (OSI-R) (Osipow, 1998), the Personal Resource Questionnaire (PRQ) is aimed at assessing coping behaviours: categorised into recreational activities, self-care behaviours, social support systems and rational/cognitive skills. It is based on Lazarus and Folkman's concepts of coping and coping styles (Osipow & Spokane, 1984).

Social support can be defined as an individual's practical and or emotional support (Brooks, Holtum & Lavender, 2002). Cohen and Wills (1985) proposed that social support may play a role at two different points in the causal link between stress and illness. Firstly, social support may intervene between the stressful event and a stress reaction, preventing a stress appraisal response. Therefore, there is a perception that others can, and will, provide necessary resources which may redefine the potential for harm posed by a situation. Thereby, increasing an individual's perceived ability to cope with imposed demands, which may prevent a particular situation from being appraised as highly stressful. Secondly, adequate social support may intervene between the experience of stress and the onset of the pathological outcome, by reducing or eliminating the stress reaction or by directly influencing physiological processes.

According to other researchers (Amrikahn, Risinger & Swickert, 1995; Kobasa, Maddi & Kahn, 1982; Watson & Hubbard, 1996) personality factors are also likely to influence social support seeking behaviour. Individuals high in 'hardiness' [*see extended introduction 1.9*] and extraversion are more likely to access and utilise social support, whilst individuals low in extroversion and, 'hardiness' are less likely either to access and/or experience positive effects of social support.

#### **1.4. Strain**

According to Lazarus and Folkman (1984) the terminology used within research to define stress and strain is chaotic, with the words being used to describe both the sources and the effects of the stress process. The interactional model of

stress assumes an interaction between the social roles and the individual's ability to cope with the negative aspects of those specific roles. It is this interaction that will determine the amount of undesirable effects, or strain experienced by the individual (Richard & Krieshok, 1989). Therefore, strain can be considered to be the reaction to stress, which is then mediated by coping resources.

### **1.5. Defining occupational stress**

Work-related stress theory has evolved at a rapid rate since the middle of the twentieth century, which has lead to an existing situation, whereby no single theory dominates contemporary occupational stress research.

There are numerous interactional models of occupational stress, however two theories that have dominated much of the contemporary research on occupational stress are: Karasek's (1979) Demand-Control (D-C) model and Person-Environment Fit (P-E fit) Theory (French, Caplan & Van Harrison, 1982).

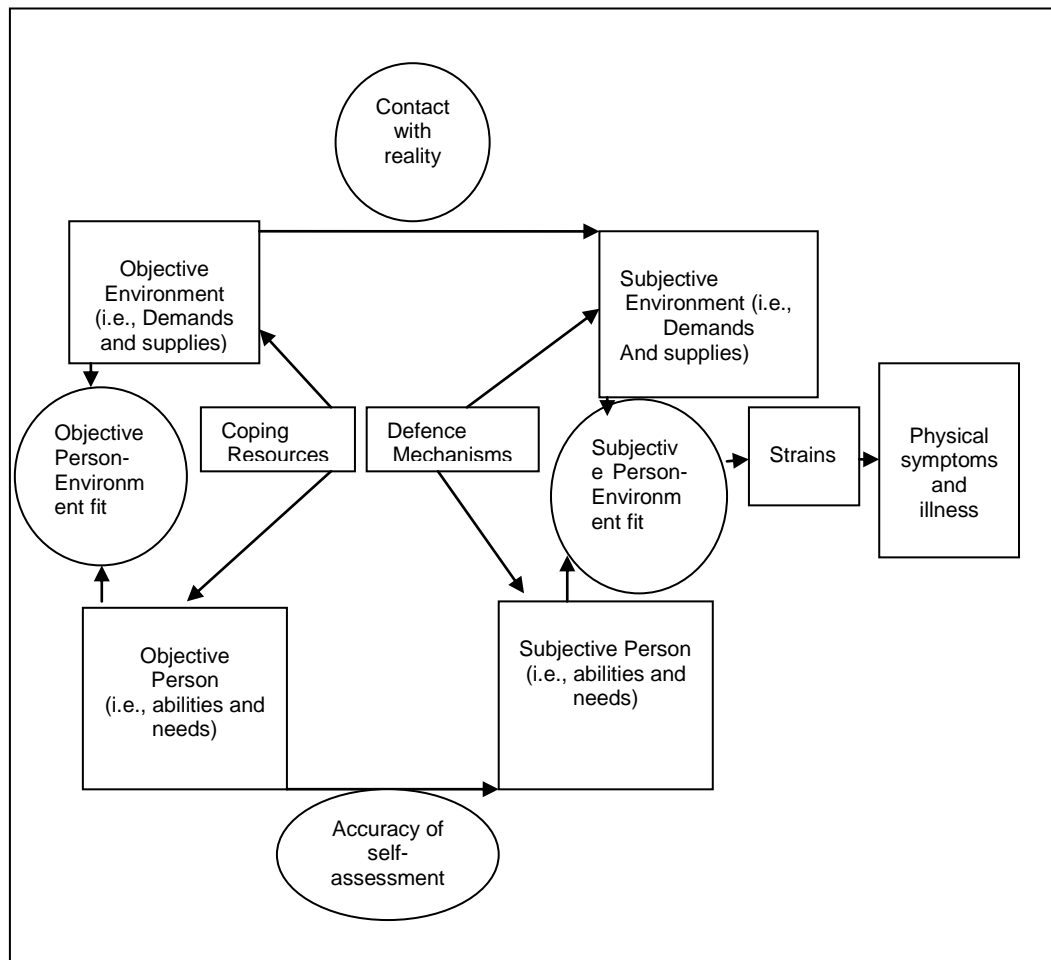
The Demand–Control (D-C) model (Karasek, 1979) states that the effects of stressors are a complex interplay between demands and an individuals' level of control. According to this theory, demands lead to strain only when the individual experiences insufficient control. It implies that giving individuals control at work can be a successful strategy for reducing the negative effects of job stressors.

However, despite its widespread application, the D-C model has been criticised on various grounds. Concern has been expressed in respect of (i) the nature of the interaction between demand and control (Taris, 2006), (ii) the application of the theory in terms of different health and health-related outcomes (Cox, 1993), (iii) the direction of causation between demands and health, and (iv) its failure to consider external factors that may impact on the individual, i.e., environmental demands (Wallis & Dollard, 2008). Research supporting this model has been varied, with only a limited number of studies concluding the hypothesised effect (Ganster & Schaubroeck, 1991). The inconsistent results may be attributable to the measures employed which have varied across studies, with an apparent lack of unifying measure and job type.

Theories of stress have long recognised the importance of both the person and the environment in understanding the nature and consequences of stress (Cable & Edwards, 2004). According to the Person-Environment fit (P-E fit) model, occupational stress is primarily a result of inadequate fit between the person and their environment. Figure 9 depicts the P-E fit model graphically. One kind of fit is the extent to which the person's skills and abilities match the requirements of the job. The second fit, is the extent to which the job environment provides support to meet the person's needs. The resulting stress and stressors are major contributors to psychological and physical strain (Furnham & Schaeffer, 1984).



### Figure 9: Person-Environment fit (P-E fit) model



Although P-E fit model provides a useful conceptual framework for understanding how person and environment constructs combine to produce strain, and how coping, and defence may resolve P-E misfit, the theory does have several limitations. The P-E fit theory does not specify the content of person and environment dimensions and does not propose a priori hypotheses regarding the relationship between P-E fit relationships and strain as an empirical matter. Evidence suggests that the relationship between P-E fit and strain may differ not only across content dimensions and indices of strain, but also across occupations. A final limitation centres on the lack of attention given to coping and defence mechanisms (Edwards, Caplan & Van Harrison, 1998).

Focusing on occupational stress, Osipow and Spokane (1984) proposed a similar interactional theory to Lazarus and Folkman's (1984) interactional theory of stress. Their model postulates that occupational stress results from the work context and primarily from the various roles an employee may occupy. Furthermore, they defined strain as the experienced consequence of occupational stress when an individual does not effectively cope with stressors. According to their model, coping behaviours tend to moderate the stress-strain relationship.

Therefore, the underlying assumption of Osipow and Spokane's (1984) model is that there is an interaction between the individual's occupational roles and their ability to cope with the negative aspects of those roles. It is this interaction that will determine the level of strain experienced by the individual (Richard & Krieshok, 1989).

Fogarty et al. (1999) conducted four separate studies that analysed occupational stress, strain and coping through path analysis. It was concluded in all four studies that stress and coping variables significantly predicted the amount of variance in strain, therefore substantiating the interactional model from which the OSI-R (Osipow, 1998) stems. Decker and Borgen (1993) also advocated an interactional approach for researchers, exploring variables related to occupational stress, strain and coping.

For the present study, the occupational stress model proposed by Osipow and Spokane (1984) was utilised, which states that given equal amounts of

perceived stress, experienced strain will be moderated by coping. Osipow and Spokane (1984) based their interactional theory of occupational stress on two fundamental stress models; Role Theory and Person-Environment fit (P-E fit). Role Theory of occupational stress was developed by Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) and Kahn (1973). Kahn et al. (1964) and Kahn's (1973) research on roles in occupational stress were used in the development of the Occupational Role Questionnaire (ORQ) within their OSI (Osipow & Spokane, 1985).

### **1.6. Individual responses to stress**

Within the literature, an individual's response to stress can be categorised as: psychological, behavioural and/or physiological (Bamber, 2006). Psychologically, the individual may experience feelings of unhappiness; irritability; worry more than usual; reduced job satisfaction; motivation and commitment to their work. Behavioural indicators of occupational stress may include: increased smoking, increased alcohol consumption, poor diet, withdrawal, strain on relationships and increased marital and family conflicts. Physiological, the individual may experience somatic symptoms such as muscular pains, tremors, palpitations, diarrhoea, sweating, respiratory distress, dizziness, headaches, increased blood pressure, dry mouth and increased heart rate. (Bamber, 2006).

### **1.7. Organisational effects of occupational stress**

The costs of occupational stress in organisational terms are much broader than just those incurred through absence from work (Bamber, 2006). Financial costs

for individual employers may be equally significant, necessitating payment for sickness benefit, redeployment, retraining, replacement, grievance procedures and litigation (Holmes, 2001). The Health and Safety Executive (HSE) (1995) includes loss of morale among staff, reduced productivity, difficulty meeting organisational/departmental goals, poor working relationships and unsafe working practices as the adverse effects of occupational stress on organisations.

## **1.8. Occupational stress, strain and coping and demographic variables**

### **1.8.(i) Age**

Selye (1980) argues that aging reflects the accumulation of all earlier stresses experienced. In addition, Osipow, Doty and Spokane (1985) predicted that life stage will reflect differences in occupational stress and will result in different occupational strains and differing availability of coping resources. A study by Kirkcaldy and Martin (2000) concluded that age was significantly related to total stress and mental health, with older nurses reporting more stress and inferior psychological health compared to younger nurses. One possible interpretation of this outcome is that older nurses may experience additional family commitments and domestic responsibilities. The impact of fulfilling multiple roles could manifest in the greater levels of stress and mental ill-health reported (Kirkcaldy & Martin, 2000).

Research exploring age as a variable within the interaction of stress, strain and coping utilising the OSI (Osipow, 1998), have yielded inconsistent results. Osipow et al. (1985) concluded that with the exception of Social Support, coping

resources were utilised less by younger individuals than by older individuals. They also concluded that older individuals expressed decreased levels of environmental stress and Role Boundary but displayed increased levels of Role Overload and Responsibility than younger individuals. However, several studies (Fogerty et al., 1999; Hemmelgarn & Laing, 1991; Richard & Krieshok, 1989) concluded that age was not a significant factor in levels of stress, strain and coping.

### **1.8.(ii) Gender**

Kirkcaldy, Furnham and Trimpop (1999) reported male nurses as being more stressed than female nurses, but in a later study concluded no gender differences in their sample of Irish nurses (Kirkcaldy & Martin, 2000).

Quick, Quick, Nelson and Hurrell (1997) concluded, that males and females differ consistently in the way they cope with the many different sources of occupational stress. Cohen and Wills (1985) argue that females may use social support to buffer or to protect themselves from the harmful effects of stress. Bellman, Forster, Still and Cooper (2003) concluded that for both males and females, social support moderated the effects of stressors on energy levels, job satisfaction, organisational security and organisational commitment; although social support interacted with different stressors across genders.

In relation to studies exploring gender as a variable in stress, strain and coping, using the OSI (Osipow & Spokane, 1989) and OSI-R (Osipow, 1998), Fogarty et al. (1999) concluded gender was not significantly correlated with stress, strain

or coping. A study by Marini, Todd and Slate (1995) found that males scored significantly higher than females on the following subscales: Physical Environment, Role Boundary and Role Insufficiently. In comparison, females only scored higher on the Role Overload stress subscale. Niles and Anderson's (1993) results indicated that male and female scores on the OSI differed significantly. They concluded that females reported average scores for occupational stress, strain and coping, while males reported higher stress and strain scores and lower coping scores. Results from studies have been inconsistent and therefore the issue of gender continues to be of interest (Fogarty et al., 1999).

### **1.8.(iii) Ethnicity**

A study by Smith, Johal, Wadsworth, Smith and Peters (2000) concluded that 30% of non-white respondents reported very or extremely high stress compared to 18% of white workers. However, no further investigation was possible due to the small proportion of minority ethnic respondents. Wadsworth et al. (2007) results showed that more black African–Caribbean respondents reported high work stress than either Bangladeshi or white respondents. Among black African–Caribbean females the reported experience of racial discrimination at work was strongly associated with both perceived work stress and psychological distress. This suggests that perceived work stress may be underpinned by reported exposure to racial discrimination at work among black African–Caribbean females and that this may affect their psychological well-being.

Ethnic minority groups make up at least 8% of the UK population with the number continuing to grow. This represents an increase in ethnic minority groups over the last four decades. Minority ethnic groups also have a younger age structure than the white (UK born) population, reflecting past immigration and fertility patterns. Ethnic minority groups will therefore continue to rise as a proportion of the working population well into the 21st century (Szczepura et al. 2004).

### **1.9. 'Hardy Personality'**

The construct of 'hardiness' has received considerable attention as an inner resource that may moderate the effects of stress (Florian, Mikulincer & Taubman, 1995).

Kobasa (1979) defined the construct of 'hardiness' as a constellation of personality characteristics that function as a resistance in the encounter with stressful life events. 'Hardiness' is composed of three interrelated components: commitment, control and challenge.

Commitment reflects a generalised sense of purpose and meaningfulness, expressed as a tendency to become actively involved in ongoing life events rather than remaining passively uninvolved (McCrae, Lambert & Lambert, 1987). This dimension of 'hardiness' relates to various conceptualisations of perceived social support (Kobasa, 1982). According to Turnipseed (1999) health care work environments provide many varied events and forced interaction with a number of individuals (both clients and co-workers) in

emotionally intensive settings. The predisposition to identify with workplace events and individuals and to find personal meaning would make healthcare workers more effective, in addition to a direct and proactive approach to events (Turnipseed, 1999).

Control refers to the tendency to believe and act as if one can influence the course of events rather than feeling helpless when confronted with adversity (McCraine et al., 1987). Turnipseed (1999) argues that control does not suggest naive expectations of complete determination of events and outcomes, but implies self-perception of having a direct influence over events and outcomes via knowledge, skill and individual choice.

Challenge is defined as the belief that change rather than stability is normal in life and that change can be a stimulus to growth rather than a threat to security (McCraine et al., 1987). Resistance to change is problematic for managers, particularly within the NHS, as it continues to reform. Individuals who view change as a threat may experience problems individually and as part of a team within the organisation (Turnipseed, 1999).

The model of 'hardiness' has been applied extensively to the field of nursing (Ford-Gilboe & Cohen, 2000; Keane, Ducette & Adler, 1985; McCraine et al., 1987; Pollock, 1986). Keane et al. (1985) presented the first research supporting the hypothesis that 'hardiness' may be an important personality based resistance resource, for preventing burnout among hospital nursing staff. They compared nurses working in intensive care units (ICUs) and non-intensive



care units (non-ICUs) of a large Philadelphia hospital and found no differences in the degree of reported burnout.

Rich and Rich (1987) studied one hundred female staff nurses in relation to 'hardiness' and stress. The results indicated a significant inverse relationship between 'hardiness' and stress. However, a limitation of this study was the lack of comparison between female and male nurses. McCraine et al. (1987) further examined the association between 'hardiness' and stress and burnout in 107 hospital staff nurses and explored the role of 'hardiness' as a moderator of the impact of occupational stress on the degree of burnout. They concluded that burnout was significantly associated with higher levels of perceived occupational stress and lower levels of 'personality hardiness'. Multiple regression analyses further indicated that occupational stressors (particularly stress due to workload) and 'hardiness' were significant additive rather than interactive predictors of burnout. However, this study yielded a survey response rate of just 41% and did not include mental health nursing staff.

A model that predicted that greater 'hardiness' leads to less occupational stress, was explored by Topf (1989). Topf (1989) studied occupational stress, burnout and 'hardiness' in one hundred hospital-based nurses from a variety of clinical practice areas. Control was linked with occupational stress. Nurses with an external locus of control demonstrated greater occupational stress. Partial support was found for the link between 'hardiness' and burnout. A limitation of this study relates to the relatively small sample size and response rate reported.

Boyle, Grap, Younger and Thornby (1991) studied 'hardiness', coping, social support and burnout in 103 critical care nurses. They found that 'hardiness' was negatively related to burnout and positively related to social support. Emotion focused coping was inversely related to 'hardiness' and positively related to burnout. DePew, Gordon, Yoder and Goodwin (1999) concluded that 'hardiness' explained 35% of the variance of burnout in a sample of nurses.

More recent studies exploring 'hardiness' and occupational stress within the nursing profession have further supported the 'hardiness' model. Harrisson, Loiselle, Duquette and Semenic (2002) verified the beneficial effects of 'hardiness' on psychological distress in nursing assistants. McVicar (2003) review of nursing stress concluded that 'hardiness' or 'hardy personality' accounted for some of the variation in stress among nursing profession.

However, Rodney (2000) concluded that total 'hardiness' was not related to nurse stress, arguing that other studies (Wright, Blache, Ralph & Lutterman, 1993) who did report a significant correlation between 'hardiness' and occupational stress or burnout, utilised only a small sample of nursing staff. Secondly, there is a possibility put forward by Rodney (2000) that perhaps 'hardiness' is less effective in stress moderation in particular work areas.

Bartone, Ursano, Wright and Ingraham (1989) concluded that emergency assist workers who were classified as 'high hardy' individuals, remained healthy while facing long periods of stress. Kobasa (1979) found that highly stressed executives with low illness rates exhibited more 'hardiness' than highly stressed

executives who exhibited a high rate of illness. Similar findings among full-time corporate employees and university students were also found (Soderstrom, Dolbier, Leiferman, & Steinhardt, 2000).

'Hardiness' has also been shown to be associated with the choice of coping strategies for dealing with stressful situations (Florian et al., 1995). Kobasa (1982), and Gentry and Kobasa (1984) have suggested that 'hardy' individuals may prefer to rely on active, transformational coping which transforms stress into a benign experience by means of problem-focused strategies. In contrast low 'hardy' individuals may prefer to employ regressive coping strategies such as cognitive and behavioural withdrawal and denial, which may heighten emotional difficulties and maladjustment (Florian et al., 1995; Williams, Webe & Smith, 1992).

Kobasa's (1979) model of 'hardiness' initially appears to alter the individual's cognitive appraisal process, such that individuals are able to reframe or reinterpret adverse experiences (Florian et al., 1995; Funk, 1992; Pollock, 1986; Tartasky, 1993; Williams et al., 1992). Consequently, the level of psychological distress experienced is reduced. Secondly, 'hardy' individuals have the ability to cope in a way that is adaptive once stress and/or adversity is perceived (Tartasky, 1993; Williams et al., 1992).

Although the 'hardy personality' model has received much support, it has also received criticism. Criticism of the model has included: (i) measurement

disagreements, (ii) gender differences, (iii) cultural influences, (iv) absence of qualitative component, (v) lack of longitudinal data.

There is a lack of agreement concerning the dimensionality of 'hardiness'. Some researchers use a global measure (Nowack, 1986; Rhodewalt & Agustsdottir, 1984), whilst others have obtained results indicating that the three components of 'hardiness' are independent predictors of health outcomes; suggesting that 'hardiness' is multidimensional rather than a unitary phenomenon (Ganellen & Blaney, 1984; Hull, Van Treuren & Virnelli, 1987; Shepperd & Kashani, 1991). In particular, Hull et al. (1987) found that the challenge component does not function reliably as a predictor of health outcomes, whilst the components of commitment and control predict consistently. Another concern tied to measurement issues (Lambert & Lambert, 1999), relates to instruments employed. Not all studies measuring 'hardiness' have used the same instrument, therefore creating difficulties in the ability to generalise findings.

'Hardiness' is said to function differently in males and females, and possibly may not be applicable to females at all (Low, 1996). Lambert and Lambert (1987) suggest that 'hardiness' might operate less strongly as a stress-resistance factor for females than males. Wiebe (1991), in a study of undergraduate students concluded that 'hardiness' exerted weaker effects among females than among males. In addition, Shepperd and Kashani (1991) concluded that 'hardiness' moderated the experience of physical and psychological symptoms only in high-stress males.

Only a limited number of studies have explored 'hardiness' across cultures (Lambert & Lambert, 1999). Nakano (1990) studied 'hardiness' in Japanese females and found that there were no 'hardiness' main effects or interactions. Florian et al. (1995) examined 'hardiness' in Israeli military recruits and found that the two 'hardiness' components of commitment and control improved mental health by reducing the appraisal of threat. Duquette and associates (1995) explored French speaking nurses working in older adults and found 'hardiness' to be an important predictor of burnout, with nurses who had high levels of 'hardiness' reporting low levels of burnout.

In a review of 'hardiness' research between 1979 and 1997, Low (1999) found only one study which had utilised a qualitative approach. Low (1999) argues that qualitative techniques would be useful in helping to understand how individuals perceive the world around them and how they view it impacting on their lives.

Lastly, the longitudinal stability of 'hardiness personality trait' within the same population has been explored in only a limited number of studies, leading to insufficient research to support whether 'hardiness' remains constant over time (Blaney et al., 1991; Lawler & Schmied, 1992).

## **1.10. Occupational stress – Health professionals**

### **1.10.(i) Health professionals and the NHS**

The job of caring for vulnerable individuals together with associated uncertainties about the effectiveness of treatment and the need to hide self-

doubt about individual competence makes health professionals a high risk cohort (Tyler & Cushway, 1992). Health care professionals in the UK have higher absence and sickness rates than staff in other sectors (Edwards & Burnard, 2003), and experience higher levels of stress and stress related problems than other occupational groups (Bamber, 2006).

Bamber (2006) estimates that we spend an average of 100, 000 hours of our lives at work; it therefore makes sense that we should find it satisfying and rewarding. However, many health care professionals within the NHS are not experiencing their employment as satisfying, with employees leaving the NHS in record numbers, and despite the uncertainty of the job market, there are chronic recruitment and retention difficulties.

The NHS was founded in July 1948 with the primary objective of offering healthcare services, which were free at the point of delivery (MacIntosh, Beech, McQueen & Reid, 2007). Since then the NHS has been considered to be the cornerstone of the British welfare state, often being referred to as 'the envy of the world' (Salauroo & Burnes, 1998). The NHS has since grown to become the third largest employer in the World and the largest organisation in Europe (MacIntosh et al., 2007). However, since the late 1970's the NHS has experienced successive waves of increasingly contentious (Savage, 1993), rapid and radical changes (Litwinenko & Cooper, 1997).

### **1.10.(ii) Health professionals and occupational stress studies**

It would appear that common stressors for all NHS professional groups have emerged from studies exploring occupational stress in NHS employees, for example workloads, relationships with patients/clients, self-doubt and relationships with other professionals (Tyler & Cushway, 1992).

### **1.10.(iii) Nursing profession**

Extensive work has been undertaken on occupational stress in nursing over the past two decades (Chang & Hancock, 2003; Kirkcaldy & Martin, 2000) with a wealth of publications since the 1990s (Lambert & Lambert, 2001). It continues to be a growing area of research (Clegg, 2001; Tully, 2004) and the prolific literature on this topic is indicative of its continuing interest to the nursing profession (Lambert & Lambert, 2001). Stress within nursing is considered a problem that affects the profession worldwide (Bourbonnais, Comeau, Vezina & Guylaine, 1998; Butterwoth, Carson, Jeacock, White & Clements, 1999). The effect of stress on nurses has been considered an important cause of a reduction in the level of efficiency of nursing (Kendrick, 2000), staff absenteeism, poor staff retention and ill-health (McGowan, 2001). A Swedish study reported that 80% of the nurses participating in their study had high or very high levels of stress (Peterson, Arnetz, Arnetz & Horte, 1995). Williams, Michie and Pattani (1998) published a report on improving the health of the NHS workforce and indicated that 2.1% of all nursing posts in psychiatry were considered hard to fill. Eighty five per cent of one hundred Trusts surveyed by the report, indicated difficulties both in recruiting and retaining nursing staff generally and this was more of a problem in mental health nursing. In addition;

literature has revealed an excessive level of occupational stress for mental health nurses (Burnard, Edwards, Fothergill, Hannigan & Coyle, 2000; Edwards & Burnard, 2003).

However, caution needs to be applied when interpreting occupational stress research in the nursing profession (McVicar, 2003). An integrative review of occupational stress in nursing by McVicar (2003) highlighted that not all studies in their review identified the practice area from which the study sample (nurses) was drawn from. A number of studies within this research area come from very small sample sizes (Cherniss, 1992; Chung & Corbett, 1998; Thornton, 1992; Harper & Minghella, 1997), often with no indication of the response rate (Hallberg, 1993), thereby limiting the ability to generalise findings. Other studies where the sample size is adequate do not report response rates (Pines & Maslach, 1978; Sherwin et al., 1992) or have recorded a very low response rate (Richardson, Burke & Leiter, 1992) placing doubt on the representativeness of the population studied.

#### **1.10.(iv) Community mental health nurses**

Burnard et al. (2000) explored the evidence of occupational stress for community mental health nurses working in the UK. They identified the main stressors as workload, administration duties and a lack of resources. In a previous study Trygstad (1986) concluded that difficulties in nurse relationships either with other registered nurses or head nurses and the ability to work together were the most important determinants of occupational stress for mental health nurses. A further study by Dawkins, Depp and Selzer (1995) on



occupational stress and mental health nurses identified administrative / organisational issues, staff conflicts and limited resources as predictors of stress. According to Burnard et al. (2000) community mental health nurses perceive themselves to be overworked, struggling with excessive paperwork and administrative issues. Studies conducted prior to Burnard et al. (2000) literature review and subsequent studies after, have concurred similar findings. Such studies suggest that an apparent pattern of stressors for mental health nurses appears to be emerging; namely, workload, organisational factors and a lack of resources (King, Lloyd & Holewa, 2008).

Edwards and Burnard (2003) have raised concerns regarding measurement tools employed in relation to studies exploring occupational stress in mental health nurses. They have argued that measurement tools must be evaluated in terms of the extent to which reliability and validity have been established. In Edwards and Burnard's (2003) systematic review of stress and stress management interventions for mental health nurses, 19 studies used questionnaires that had been specifically designed for the study, however only seven of the studies described data on reliability and validity of their devised measurement tools.

Edwards and Burnard (2003) have also raised concern regarding the statistical analysis of several studies exploring occupational stress in mental health nurses. These concerns have included: employing advanced statistical tests (regression analysis, logistic analysis) when the sample size was too small (Kirby & Pollock, 1995; McCarthy, 1985). In addition, five studies did not present

any statistical information (i.e., whether the data was parametric or non-parametric, statistical analysis employed), therefore their conclusions cannot be accepted as valid (Edwards & Burnard, 2003).

In general, studies of psychiatric nurses tend to be rarer (Sutherland & Cooper, 1990) than studies of either general nurses, or nurses who work in a range of specialised areas such as child psychiatry, learning disability, midwifery, medical and surgical, AIDS and oncology, geriatrics and student nurses (Kilfedder, Power & Wells, 2001). McVicar (2003) concluded that further comparative studies are required, as it appears to be important that the NHS should consider that nurses' levels and sources of occupational stress could differ between practice areas and between inpatient/community.

#### **1.10.(v) Professionals working within community mental health teams**

The development of community mental health teams has required individuals to adapt to new roles, responsibilities and hierarchies, with limited training or preparation (Lloyd, McKenna & King, 2005). According to Prosser et al. (1996, 1999) working in the community is more stressful than working in inpatient services and has been associated with poorer mental health in health care employees.

Onyett, Pillinger and Muijen (1997) conducted a study exploring levels of occupational stress of 445 professionals working within community mental health teams. Although the largest group was nursing (n = 197), significant differences were found between the disciplines. Social workers scored highly on

burnout, team role and personal role clarity. This finding is also consistent with a study by Reid et al. (1999) who concluded that mental health social workers were susceptible to occupational stress, reporting more concerns about role conflict and role ambiguity than any other profession.

A recent study by Evans et al. (2006) reported 47% of mental health social workers in England and Wales showed significant stress levels. Participants reported feeling undervalued at work, excessive work demands, and limited involvement in decision making. However, there are several criticisms of this study which should be considered when interpreting the findings. Firstly, a response rate of only 49% was reported. Secondly, the study was conducted at a time of uncertainty for many of the participants involved, in relation to their job role. This may mean that organisational change factors played a large part in the source of occupational stress and was not taken into consideration.

#### **1.10.(vi) Psychotherapists**

Although being a therapist is perceived as a career that is fulfilling, it may also generate both personal and professional strain (Cushway & Tyler, 1994).

Several qualitative studies have explored occupational stress in therapists. Farber and Heifetz (1982) conducted qualitative research with psychotherapists and concluded that 74% cited lack of therapeutic success as their primary stressor and 57% blamed non-reciprocated attentiveness, giving, and responsibility demanded by the therapeutic relationship as major stressors. Recently, Papadomarkaki and Lewis (2008) employed a qualitative

methodology to examine counselling psychologists' experiences of occupational stress in the West Midlands. They found that four key themes emerged from their data: uncertainty at work; relationships with others; 'being me' and criticism of professional identity.

According to Skarbek (1997) the setting in which psychotherapeutic treatment in the NHS is offered, frequently consists of shabby, poorly furnished rooms, designed predominately for medical practice. In addition another source of stress for the therapist is the difficulty in guaranteeing continuity for their clients. Interference in the form of sharing therapy rooms, noise, and telephone interruptions, can and do interrupt the intervention process (Sharbek, 1997).

#### **1.11. Psychotherapy training**

According to Cushway (1997) training is a time of transitions and although it can be exciting and stimulating, it is also inevitably challenging and often experienced as stressful.

As well as managing the rigours of academic work, trainee psychotherapists are also required to focus on themselves as the therapist of the person (Guy, 1987). Farber (1985) discusses the development of psychological-mindedness by trainee therapists and awareness of the trainees' own psychological difficulties. Glickauf-Hughes and Mehlman (1995) argue that counsellors frequently struggle with doubts and insecurities about being 'good enough' and even if self-doubt is to be expected in training, this does not mitigate its negative effect upon trainees (Szymanska, 2002).

Cushway (1997) argues it is not surprising that trainee psychotherapists may become stressed. They may feel inexperienced, uncertain and overwhelmed by the complexities of the therapeutic role, whilst being required to complete academic and clinical assignments, be observed, evaluated and graded at every step of the way.

Research on trainee clinical psychologists has focused on exploring occupational stress, psychological adaption, coping, social support and cognitions (Cushway, 1992; Kuyken, Power, Peters & Lavender, 2003). Such research has concluded that variations in reported distress levels and psychological adaptation are associated with both course-related and person-related factors (Brooks, et al., 2002). However, a limitation from several studies exploring occupational stress in trainee mental health professionals relates to the measures employed. Cushway (1992) devised a questionnaire specifically for their study, exploring stress in trainee clinical psychologists and utilised the General Health Questionnaire (GHQ). Similarly, Kumary and Baker (2008) utilised an unstandardised questionnaire and the GHQ, in their study exploring stress in trainee counselling psychologists. However, the GHQ is not necessarily a measure of stress, but a measure of psychological symptoms. It could therefore be argued that psychological symptoms rather than stress were being explored in previous studies (Cushway, 1992; Kumary & Baker, 2008) in relation to occupational stress in trainee mental health professionals.

## **1.12. Improving Access to Psychological Therapies (IAPT)**

### **1.12.(i) Rationale for IAPT**

According to Turpin, Richards, Hope and Duffy (2008) the investment in mental health services globally has failed to match the demand for services to adequately provide effective treatments. The Lancet in 2001 commented that access to psychological treatment was 'pitiful' in inpatient care and in the community in the UK. Despite National Institute for Clinical Effectiveness (NICE) guidelines in anxiety and depression (NICE, 2004a, 2004b), sufficient numbers of recommended treatments are not delivered by services as they are currently configured and funded (Bebbington et al., 2000). A study by Bebbington et al. (2000) concluded that less than 14% of individuals with a mental health disorder were receiving treatment, mostly in the form of medication, with less than 8% receiving any form of psychotherapy in addition to or instead of medication. In addition, The Office of National Statistics (2000) concluded that only 1% of individuals receive an evidence-based psychological treatment as recommended by NICE.

According to Richards and Suckling (2008), the vast proportion of mental health money is spent on serious disorders such as psychosis. In contrast, significant sums of money are spent on supporting individuals with anxiety and depression that are out of work, through the payment of incapacity benefit. Indeed, Layard (2004, 2006a) has estimated that the UK spends between £7 and £10 billion on benefit payments to individuals with mental health problems, with the cost of providing effective mental health care tiny in comparison (Layard, 2006a).

In addition to the economic argument, others have argued along moral lines, including Lawson (2007) who referred to a 'social recession' to describe the increase of depression.

According to Turpin et al. (2008) equitable and timely access to evidence-based psychological therapies has the potential to radically improve the lives of many individuals; alleviating distress in both individuals and families, promoting well-being and understanding of mental illness, reducing stigma and supporting individuals in the workplace and to return to work.

#### **1.12.(ii) What is IAPT?**

The Mental Health Policy Group of the Centre for Economic Performance published a report in 2006, which concluded that evidence-based psychological therapy should be made more available to individuals (Marzillier & Hall, 2009), to increase the happiness and productivity of the population. The report now commonly referred to as the Layard Report (2006b) led to a number of government funded initiatives, known as the Increasing Access to Psychological Therapies (IAPT) Programme. This initiative, totalling £300 million constitutes the largest ever programme in the UK to support the delivery of psychological therapies within the NHS (Marzillier & Hall, 2009).

The development of IAPT services intends to be an integral community-wide effort to develop person-and-family centred services, with a basic service model consisting of a team of therapists within a Primary Care Trust (PCT) taking referrals from GP's, as well as self-referrals. A major feature of IAPT services is

the stepped-care model (Bower & Gilbody, 2005) which determines how invested resources are organised within models of service delivery. The stepped care model has two fundamental principals: treatments should always be the least restrictive and it should be self-correcting (Turpin et al., 2008).

Initially clients receive an assessment by a member of the psychological therapies team and treated accorded to NICE guidelines (Department of Health, 2008a). Cognitive behavioural therapy (CBT) is recommended by NICE (2004a, 2004b) for both depression and anxiety and considering that the basic premise of IAPT relates to the investment of psychological therapies to increase wellbeing and decrease reliance on incapacity benefit for common mental health disorders, CBT is the principle psychological therapy within IAPT (Richards & Suckling, 2008).

Variants of CBT have been characterised as both low-intensity and high-intensity within IAPT, allowing the same theoretically consistent and empirically valid treatment to be delivered in different 'doses' according to individual client need (Turpin et al., 2008). Most clients with mild to moderate depression are likely to begin at step two, within the system of stepped care, described as low-intensity treatment (Department of Health, 2008a). Low-intensity treatments emphasise client self-management with less emphasis on individual contact between client and mental health worker. For example the use of guided self-help, watchful waiting or brief face-to-face psychological interventions (up to seven sessions) (Richards & Suckling, 2008). It can also include guided use of computerised CBT (cCBT) (Department of Health, 2008a). However, Turpin et



al. (2008) argues that low-intensity treatments are not 'watered down' CBT, but involve different aspects of work, including employment support, and signposting the client to other services, which are not traditionally associated with CBT.

A client who is severely depressed or does not respond to low-intensity treatment requires step three high-intensity treatment involving up to 20 therapy sessions, usually on a face-to-face basis (Department of Health, 2008a), similar to traditional therapy models (Richards & Suckling, 2008).

In relation to anxiety disorders, such as post-traumatic stress disorder (PTSD), social phobia, obsessive-compulsive disorder and other persistent disorders (generalised anxiety disorder, panic disorder), clients will normally be directed straight to high-intensity treatment (usually seven to 14 sessions), unless the anxiety is very mild or recent (Department of Health, 2008a).

Trainee low-intensity therapists are employed at Agenda for Change (AfC, which is a universal pay system in operation within the NHS for the majority of NHS staff ) (Department of Health, 2004) Band four and attend a one year low-intensity training programme one day a week, undertaking supervised practice in IAPT services for four days a week (Turpin et al., 2008). Low-intensity therapists are expected to operate in a stepped-care, high-volume environment carrying as many as 45 active cases at any one time, with therapists completing treatment of between 175 and 250 clients per year. In addition, low-intensity therapists are required to collect, as a matter of routine, social, clinical and

employment outcomes at each session as part of a national outcome system (Department of Health, 2008b).

Trainee high-intensity psychological therapists employed at AfC Band six attend a one year training programme two days a week undertaking supervised practice in IAPT services for three days a week (Turpin et al., 2008). High-intensity therapists should also be familiar with the low-intensity work that many clients may have received before being 'stepped up' to high-intensity treatment (Department of Health, 2008c).

According to the Department of Health (2008a) high-intensity IAPT therapists are likely to be drawn from the professions of clinical psychology and psychotherapy; as well as individuals with experience of mental health, including nurses and counsellors. Low-intensity IAPT trainees are likely to be drawn from wider sources.

### **1.12.(iii) Implementation of IAPT**

The IAPT programme began in 2006 with demonstration sites in Doncaster and Newham (Marziller & Hall, 2009). In July 2007, 11 IAPT Pathfinder sites were implemented; aimed at discovering how IAPT services could in future; meet the needs of the whole population by expanding the model care where the focus had been on adults of working age. The Pathfinder sites were asked to address the needs of particular groups of the population: older people, children and young people, offenders, new mothers, black and minority ethnic communities, people with long-term conditions or medically unexplained symptoms

(Department of Health, 2008d). In autumn 2008 Lincolnshire Partnership Foundation Trust (LPFT) and Nottingham City Primary Trust (PCT) were successful in bidding to take part in the IAPT programme, as the IAPT programme was rolled out nationally.

#### **1.12.(iv) Evidence for the IAPT programme**

The two demonstration sites (Doncaster and Newham) will be subject to a rigorous and independent three year review to be published in 2010. However Clark, Layard and Smithies (2008) published a paper to report on an initial evaluation of the two demonstration sites. Their report concluded that during the 13 months covered by the report, nearly 5,500 individuals had been referred, and of whom 3,500 had concluded their involvement with IAPT services. The authors cited that 52% of clients had achieved good recovery, with 5% of the treated population now in employment. In addition session by session use of outcome measures was cited as 99% for Doncaster and 88% for Newham. However, data completeness was 56% or less for measures that were only intended to be collected at pre-treatment and post-treatment (Clark et al., 2008).

In addition, a progress report on Pathfinders sites (Department of Health, 2008d) reported that overall satisfaction was high, with more than 95% of clients who completed questionnaires reporting a good experience of the IAPT service, the treatment and their therapists.

### **1.13. Participants**

#### **1.13.(i) Response rate**

The response rate of 73% for this study compares favourably with other similar questionnaire studies. 76% response rate was reported by Cushway (1992) in a questionnaire study of trainee clinical psychologists. A response rate of 67% was achieved by Cushway and Tyler (1994) in their study examining stress and coping in clinical psychologists in the West Midlands. Recently, Kumary and Baker (2008) achieved a 41% return rate in their study exploring stress in UK trainee counselling psychologists.

#### **1.13.(ii) Extended description of participants**

In relation to the whole sample, 36.4% were employed by Nottingham Primary Care Trust, whilst 63.6% were employed by Lincolnshire Partnership Foundation Trust. The majority (65.9%) were enrolled on the September 2008 intake, whilst 34.1% (all identified as low-intensity trainees) were enrolled on the February 2009 intake of the IAPT programme. The following is a representation of their highest level of qualification on entering the IAPT programme: first degree from a UK institution (45.5%), postgraduate diploma (20.5%), Ma/MSc/Mphil/PhD (15.9%), foundation course at HE level (4.5%), graduate equivalent (4.5%), PGCE (2.3%), Dip HE (2.3%), professional qualification i.e. counselling certificate (2.3%) and NC/ND/ONC/OND (2.3%).

With regard to the low-intensity group of trainees in this study, the mean age was 30.7 years (SD = 10.8), with an age range between 21 and 53 years old. 89.3% were female and 10.7% were male. In relation to ethnicity 92.9%

classified themselves as white British, 3.6% mixed white and black Caribbean and 3.6% any other mixed background. 32.1% of the low-intensity trainee group were employed by Nottingham Primary Care Trust, whilst 67.9% were employed by Lincolnshire Partnership Foundation Trust. 46.4% of low-intensity trainees were enrolled on the September 2008 intake, whilst 53.6% were enrolled on the February 2009 intake of the IAPT programme. The following is a representation of their highest level of qualification on entering the IAPT programme: first degree on a UK institution (60.7%), Ma/MSc/Mphil/PhD (10.7%), Postgraduate Diploma (7.1%), graduate equivalent (7.1%), PGCE (3.6%), Dip HE (3.6%), professional qualification i.e. counselling certificate (3.6%) and foundation course at HE level (3.6%).

With regard to the high-intensity group of trainees in this study, the mean age was 36.6 years (SD = 9.5) with a range between 25 and 56 years. 62.5% were female and 37.5% were male. In relation to ethnicity 100% classified themselves as white British. 43.8% of the high-intensity trainee group were employed by Nottingham Primary Care Trust, whilst 56.3% were employed by Lincolnshire Partnership Foundation Trust. All high- intensity trainees were enrolled on the September 2008 intake of the IAPT programme. The following is a representation of their highest level of qualification on entering the IAPT programme: Postgraduate Diploma (43.8%), Ma/MSc/Mphil/PhD (25%), first degree from a UK institution (18.8%), foundation course at HE level (6.3%) and NC/ND/ONC/OND (6.3%).

### **1.13.(iii) Inclusion criteria**

- Participants must have been registered as either a low or a high-intensity trainee psychological therapist, enrolled on the IAPT training programme.
- Enrolled on either the September 2008 or February 2009 intake of the IAPT training programme.
- Employed by either Nottingham City Primary Care Trust or Lincolnshire Partnership Foundation Trust (LPFT).

### **1.13.(iv) Exclusion criteria**

- Participants who did not fit the above inclusion criteria.

### **1.14. Sample size**

Multiple linear regression analysis was planned for this study. According to Howell (1997) for every independent variable, ten participants are required to carry out a multiple linear regression. This study examined whether the three components of hardiness (commitment, control and hardiness) could significantly predict levels of occupational stress. Using Howell's (1997) method to calculate sample size, a minimum of 30 participants would therefore have been required.

For a more accurate calculation of the required sample size a G\*Power: Version 3.0.8 (Erdfelder, Faul & Butcher, 1996) was conducted. Using The Occupational Stress Inventory-Revised (OSI-R) (Osipow & Spokane, 1998) as the primary outcome measure, the G\*Power: Version 3.0.8 (Erdfelder et al., 1996)

calculated that 41 participants were required, seeking for a medium effect size of 0.3, with a two tailed test, an alpha level of 0.05 and power of 0.8.

## **1.15. Measures**

### **1.15.(i) OSI-R**

Osipow and Spokane (1984) developed a model of stressors applicable across occupational levels and environments. Their model integrates sources of work environment stress, the resultant psychological strains and available coping resources. According to Osipow (1998) the main reasons the OSI was developed and subsequently revised were to:

- Develop generic measures of occupational stressors that would apply across different occupational levels and environments
- Provide measures for an integrated theoretical model linking sources of stress in the work environment, the psychological strains experienced by individuals as a result of work stressors and the coping resources available to mediate the effects of stressors and to alleviate strain.

In stress models, occupational stresses are perceived to have consequences for the individual. Osipow (1998) identified the distinction between perceived stress and experienced strain and this distinction became the basis for the model underlying the OSI-R. In addition to perceived stress and experienced strain, a definition of coping resources that counteracted the effects of stress was included in their original stress scale. According to Osipow (1991) the model and the scale that emerged was that the work environment places individuals in roles that create the perception of stress, that individuals use

various coping methods to deal with these stresses, and the degrees of success of these coping methods, in combination with the intensity of the stress interact to produce a level of strain.

Each dimension is measured by assessing specific attributes contributing to the overall score. These individual or environmental attributes are the subscales of the three dimensions and are as follows:

Occupational Roles Questionnaire (ORQ) measures the amount of stress induced by work roles. There are 60 items in this scale, which are divided into the following six subscales, consisting of 10 items each:

- Role overload – Within the OSI-R (Osipow, 1998), Role Overload measures the extent to which personal and occupational resources are exceeded by occupational demands and to what extent work loads are accomplished by the individual (Osipow, 1998). Examples of items include “At work I am expected to do too many different tasks in too little time” and “I am expected to perform tasks on my job for which I have never been trained”. High scores on this subscale indicate that an individual feels they have inadequate training or competence to do the job that is required of them.

Decker and Borgen (1993) concluded that Role Overload was modestly correlated with strain, however, no relationship was found between Role Overload and job satisfaction in their study of counsellors. In a further study by Aitken and Schloss (1994) exploring occupational stress and burnout



among staff working with learning disabilities, Role Overload was reported to be high due to the Physical Environment.

- Role Insufficiency measures the degree to which the individual's training, education, skills, and experience are appropriate to job requirements (Osipow, 1998). Examples of items include "I am bored with my job" and "My job has a good future". An individual who scores high on this subscale would indicate that there is a poor fit between their skills and the job they are performing.

Osipow and Davis (1988) found Role Insufficiency had a significant impact on Vocational Strain. However, a further study, exploring administrators' occupational stress factors, found no significant relationship between Role Insufficiency and occupational stress (Clark & Smith, 1987).

- The Role Ambiguity subscale of the OSI-R measures the extent to which priorities, expectations and evaluation criteria are clear to an individual (Osipow, 1998). Examples of items include "My supervisor provides me with useful feedback about my performance" and "The priorities of my job are clear to me". High scorers on this subscale reportedly need clarity on how they should structure their job and time, and often experience conflicting demands from supervisors.

Turnipseed (1999) concluded that control in the workplace was negatively correlated with Role Ambiguity. Decker and Borgen (1993), similarly found

that having ambiguous or unchallenging work was more predictive of adverse outcomes of strain and job dissatisfaction. Additionally, Role Ambiguity has found to be correlated with job threat and anxiety (Marini et al., 1995).

- Role Boundary occurs when the individual is torn by conflicting job demands, doing tasks that they do not want to do, or feeling that those tasks are not part of their job description. This occurs most frequently when a person is expected to perform in different ways by different people (Osipow, 1998; Osipow & Davis, 1988). Examples of items include “I have more than one person telling me what to do” and “I know where I fit in my organisation”. Individuals who obtain high scores on this subscale indicate having difficulty in identifying clear lines of authority and may struggle with receiving tasks from more than one individual.

Role Boundary has been found to contribute significantly to overall Vocational Strain (Osipow & Davis, 1988; Osipow, Doty & Spokane, 1985).

- Responsibility measures the extent to which an individual has, or feels, a great deal of responsibility for the performance and welfare of others on the job (Osipow, 1998). Examples of items include “My job requires me to make important decisions” and “I worry about meeting my job responsibilities”. High scorers may feel unable to deal with conflicting demands placed on them by difficult employees or colleagues.

Responsibility has been found to significantly contribute to occupational stress (Osipow et al., 1985) and to Physical Strain (Osipow & Davis, 1988).

- Physical Environment subscale within the OSI-R measures the degree to which an individual is exposed to high levels of environmental toxins or extreme physical conditions (Osipow, 1998). Examples of items include “I work all by myself” and “On my job I am exposed to temperature extremes”. Individual who have high scores would indicate that they are struggling with the excessive physical challenges in the work context, including erratic work schedules and isolation (Osipow, 1998).

Aitken and Schloss (1994) concluded that for staff working within an institution for individuals with learning disabilities, Role Overload, Role Ambiguity, and conflicting role demands were reported to be high due to the Physical Environment.

Personal Strain Questionnaire (PSQ) – According to Osipow and Davis (1988), the outcome of stress is believed to be personal strain, which is manifested in vocational, physical, interpersonal and psychological strain (Cox, 1985). Some of the symptoms of vocational strain are behavioural reactions to stressful work situations. These include boredom, dread, lack of interest, poor concentration and increased accident proneness (Sutherland, Fogarty & Pithers, 1995). The PSQ consists of 40 items, which are divided into the following four subscales consisting of 10 items each:

- Vocational Strain assesses the individual's attitude toward work and whether the individual is experiencing difficulties in work quality. Examples of items include "I find my work interesting and/or exciting" and "I am bored with my work". High scores may indicate that an individual has a poor attitude towards their work.

According to Osipow and Davis (1988) vocational strain was related to the occupational stressors Role Overload, Role Insufficiency, Role Boundary and Physical Environment in a study of veterinary students. In a study of females in various occupations, job satisfaction was significantly related to lower levels of role strain (Hemmelgarn & Laing, 1991). Motowidlo, Packard and Manning (1986) concluded that occupational stress negatively affected job performance in nurses.

- Psychological Strain measures the extent of psychological and/or emotional problems such as depression and anxiety are experienced by an individual (Osipow, 1998). Examples of items include "Lately, I have been depressed" and "Lately, I respond badly to situations that normally wouldn't bother me". Individuals with high scores may report feeling depressed, anxious, unhappy, and/or irritable.

Bailey and Bhagat (1987) infer that psychological reactions to stress begin with initial shock and disbelief, followed by defensive reactions, denial, blame and eventually acceptance. Strain reactions may be temporary or long term, mild or severe depending on the longevity of the cause, how strong they are

and the strength of the individual's ability to recover and cope. According to Ivancevich and Matteson (1993) psychological strain can be measured as subjective symptoms of a mental disorder (anxiety, depression, and anger), cognitive symptoms (inability to make decisions, poor concentration and attention), worrying and neurosis about work, and behavioural symptoms, which have detrimental effects (alcoholism, drug abuse, overeating and impulsive behaviour).

- Interpersonal Strain measures the degree of disruption in interpersonal relationships. Desiring time alone or reporting not enough time with others are also factors contributing to the Interpersonal Strain score (Osipow, 1998). Examples of items include "I have been withdrawing from people lately" and "I often quarrel with the person closest to me". High scorers may report wanting to withdraw and spend more time alone.

Osipow and Davis (1988) concluded that Role Overload, Role Boundary and Responsibility were the most reliable predictors of interpersonal strain. In a study of medical students, Interpersonal Strain was rated as the major effect of occupational stress (Alexander, Monk & Jonas, 1985).

- Physical Strain measures complaints about physical illness and/or poor self-care habits. (Osipow, 1998). Examples of items include "My eating habits are erratic" and "I have trouble falling asleep and staying asleep". Individuals with high scores may report frequent worries about their health.

According to Osipow and Davies (1988) Physical Strain is most likely to occur as a result of high Role Overload, Role Insufficiency and Responsibility. In university faculty staff, the most frequently reported source of experienced strain was Physical Strain, i.e., headaches (Brown et al., 1986).

Personal Resources Questionnaire (PRQ) - Newman and Beehr (1979) provided the foundations for the third dimension of the OSI-R, referred to as the Personal Resources Questionnaire (PRQ). The PRQ measures coping resources and is composed of 40 items and makes up our subscales with 10 items each:

- Recreation measures the degree to which an individual makes use of, and derives pleasure and relaxation from, regular recreational activities (Osipow, 1998). Examples of items include “On weekends I spend time doing the things I enjoy most” and “When I am relaxing, I frequently think about work”. Individuals who score highly on this subscale may report taking advantage of leisure time, engaging in activities that they enjoy.

According to Cunningham (1989) productive and satisfying use of recreation and leisure time has been identified as a potential coping strategy in reducing stress. Sowa, May and Niles (1994) concluded that counsellors who had participated in stress management courses reported significantly higher levels of Recreation than counsellors who did not take part in the course. Moreover, regular exercise, sleep, healthy diet, relaxation techniques and

avoiding harmful substances all contribute to a positive coping strategy (Osipow, 1998; Rodin & Salovey, 1989).

- Self-Care measures the extent to which an individual regularly engages in personal activities, which reduce or alleviate stress (Osipow, 1998). Examples of items include “I am careful about my diet (e.g., eating regularly, moderately and with good nutrition)” and “I avoid excessive use of alcohol”. High scores would indicate that the individual is involved in healthy activities such as exercising regularly, eating healthy, practicing relaxation techniques and avoiding harmful substances such as drugs.
- Social Support measures the degree to which an individual feels supported and helped from those around them (Osipow, 1998). Examples of items include “There is at least one sympathetic person with whom I can discuss my concerns” and “If I need help at work, I know who to approach”. Individuals who report high scores tend to feel that they have people they can count on and talk to about work problems, and tend to feel close to at least one other person.

According to Winnubst and Schabracq (1996) Social Support comes in a variety of forms, such as instrumental support (helping others directly), emotional support (giving care, love and sympathy), informational support (providing information that can be used for coping) and appraisal support (feedback about personal functioning directed at enhancing esteem).

- The OSI-R subscale, Rational/Cognitive Coping measures the extent to which an individual possesses and utilizes cognitive skills to work through their occupational stress (Osipow, 1998). Examples of items include “I am able to put my job out of mind when I go home” and “I feel that there are other jobs I could do besides my current one”. High scorers tend to report a systematic approach to problem solving, thinking through the consequences of their choices and identifying important elements of problems encountered (Osipow, 1998).

The OSI-R manual (Osipow, 1998) reliability estimates were determined in two ways. Firstly, test-retest reliability was obtained by administering the OSI-R to a sample of 62 Air Force Cadets over a two-week period. The scale test-retest correlations ranged from a low .39 for Self Care (SC) to a high of .74 for the total PSQ score. Only two correlations were less than .50 and all correlations between the two administrations were significant at the .01 level. The second reliability estimate used was an internal consistency analysis with the normative sample. Alpha coefficients for OSI-R total questionnaire scores were .88 for ORQ, .93 for PSQ, and .89 for PRQ. Coefficients for individual scales ranged from .70 to .89 (Osipow, 1998). Validity data for the OSI-R is reported in the OSI-R manual (Osipow, 1998) to be based on five principle sources: (a) convergent validity studies; (b) factor analyses; (c) correlational studies of the relationships of the scales to variables of practical, and theoretical importance; (d) studies using the scales as outcome measures following stress reduction treatment; and (e) studies of the stress, strain, and coping model employing comparisons of selected criterion groups.



Reading the instructions and responding to the test items takes approximately thirty minutes. A separate rating sheet is used for the recording of responses to each item, with participants responding on a five-point rating scale for each statement presented. The following rating scale is utilised: The participant marks one if the statement is rarely or never true, two if the statement is occasionally true, three if the statement is often true, four if the statement is usually true and five if the statement is true most of the time. The raw scores for each subscale may be entered on a profile form which provides T-score equivalents (Osipow, 1998).

#### **1.15.(ii) Justification for using OSI-R**

Models and theories of stress have been utilised by recent stress researches to develop integrated models and associated measurement instruments. A similar instrument to the OSI-R is Cooper, Sloan and Williams' (1988) Occupational Stress Indicator. This is based on a model of stress incorporating a range of stress sources, individual and organisational effects, and many intervening variables. Although the model has been used for many studies, it has been criticised because of the fact that it tries to measure too many aspects at any one time (Jones & Bright, 2001).

Cushway, Tyler and Nolan (1996) devised a stress scale for mental health professionals (Mental Health Professionals Stress Scale – MHPSS). The OSI-R was chosen over the MHPSS for several reasons. Firstly, the OSI-R was developed based on relevant occupational stress theory, in comparison the MHPSS was devised in response to four previous studies. The OSI-R explores

the interaction between perceived stress, experienced strain and coping resources. However, the MHPSS does not measure strain, nor does it include coping resources. The OSI-R has been utilised in a vast number of occupational stress studies, including studies with mental health professionals. Studies using the MHPSS have been more limited. In addition, the reliability and validity of the OSI-R indicate that it is more robust than the MHPSS.

Various approaches have been developed to measure strain, including physiological procedures i.e. electroencephalography (EEG) and blood pressure. However these techniques are also related to psychological, psychophysiological and psychosomatic disorders (Turnipseed, 1999). Self-report measures of strain have included State-Trait Anxiety Inventory and Beck anxiety and depression scales. Although the psychometric properties of these measures indicate good reliability and validity, there is little available to examine the interactive effects of stress, strain and coping (Turnipseed, 1999).

The OSI-R has been viewed as a reliable and valid instrument to measure occupational stress, strain, and coping. This has been evidenced by an eclectic variety of studies ranging from the issue of lesbian identity, and disclosure in the workplace (Driscoll, Kelley & Fassinger, 1996), hardy personality at work in the health care industry (Turnipseed, 1999), predicting occupational strain, and job satisfaction (Fogarty et al., 1999), and relationship between burnout, and occupational stress among nurses (Wu, Zhu, Wang, Wang & Lan, 2007).

The OSI-R is suitable for a number of important mental health applications, including helping to identify the sources of stress, and the symptoms of strain, prevalent in a specific occupational unit or group; Programs for employee assistance, and counselling can utilise the results of the OSI-R to help the individual understand the sources of his or her occupational stress; OSI-R can serve as a reliable, and consistent outcome measure to establish the effectiveness of individual or organisational interventions (Osipow, 1998).

The decision to use the OSI-R was largely because of its applicability to the models and theories of stress research, its numerous applications as an instrument and the availability of reliability and validity information.

#### **1.15.(iii) Hardiness measure**

The original HS measure by Kobasa (1982), reliability correlations are .70 for all three subscales. In a study by Harrison et al. (2002) internal consistency of the scale was adequate with the overall alpha coefficient of 0.85 and subscale coefficients of .64 (commitment), .70 (control), and .70 (challenge). 'Hardiness' is thought to represent the characteristic manner in which an individual approaches and interprets an experience. It is usually described in terms of three closely-related dispositional tendencies: a) commitment, a sense of meaning, and purpose; b) control, a sense of autonomy and ability to influence one's destiny; and c) challenge; a kind of zest for life that leads an individual to perceive changes as exciting and as opportunities for growth rather than threats to security or survival (Maddi & Kobasa, 1984). According to Kobasa et al.

(1982) there is good evidence that 'hardiness' is an especially salient dimension in how individuals process and cope with stressful life circumstances.

#### **1.15.(iv) Justification for not using a unitary measure of hardiness**

Given the different relationships found between the subcomponents (commitment, control and challenge) of 'hardiness'; to use the composite 'hardiness' measure alone would appear to neglect the separate and independent contributions of the three parts (Turnipseed, 1999). It was therefore decided that 'hardiness' would be reported as three separate subcomponents and the unitary measure would be avoided.

#### **1.16. Procedure**

The researcher's presence at the beginning of supervision/teaching sessions and team meetings allowed questions and queries to be addressed and for individual low and high-intensity therapists to be invited to participate.

The returned questionnaires were hand scored using a scoring template. On the OSI-R the item scores were summed to obtain the raw scores per subscale, which were then converted to T-Scores using the relevant 'professional population' norm table in the inventory manual. In addition each of the subscales pertaining to the three domains were added together to provide an overall ORQ, PSQ and PRQ score. For the Hardiness Scale the item scores for each of three domains (challenge, commitment and control) were summed to obtain overall scores within each domain.

### **1.17. Ethical considerations**

Questionnaires involved participants answering questions about their level of perceived occupational stress, experienced strain, coping resources and 'hardiness personality traits', which may be considered to be contentious and/or sensitive. It was made clear in the participant information sheet that individual responses were confidential and their manager would not have access to completed questionnaires which, aimed to reassure participants that there would be no repercussions from individual questionnaire responses.

## **2. Extended Results**

### **2.1. Missing data**

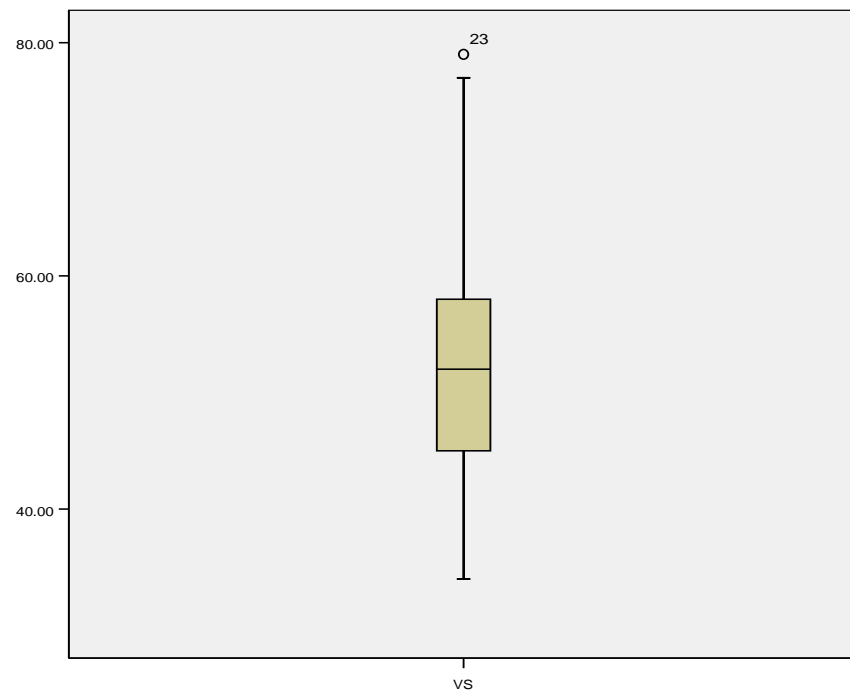
Missing data can occur for various reasons such as: participants can return their questionnaires partially or completely unanswered, data points may be unreadable or they may have arisen due to data entry errors. According to Roth (1994) and Raymond and Roberts (1987) less than 10% of data loss in a random way makes little difference in the parameter estimates and the sample statistics. However, if substantial amounts of data are missing, then several issues arise. Firstly, a loss of data can reduce the statistical power of estimates (Little & Schenker, 1995). Secondly, missing data can bias parameter estimates and threaten the validity of inferences. When data is missing from certain parts along the sample distribution, statistical estimates can be biased in ways that are different from those that would be attained from complete sets (Little & Schenker, 1995). There was no missing data from the current study.

### **2.2. Outliers**

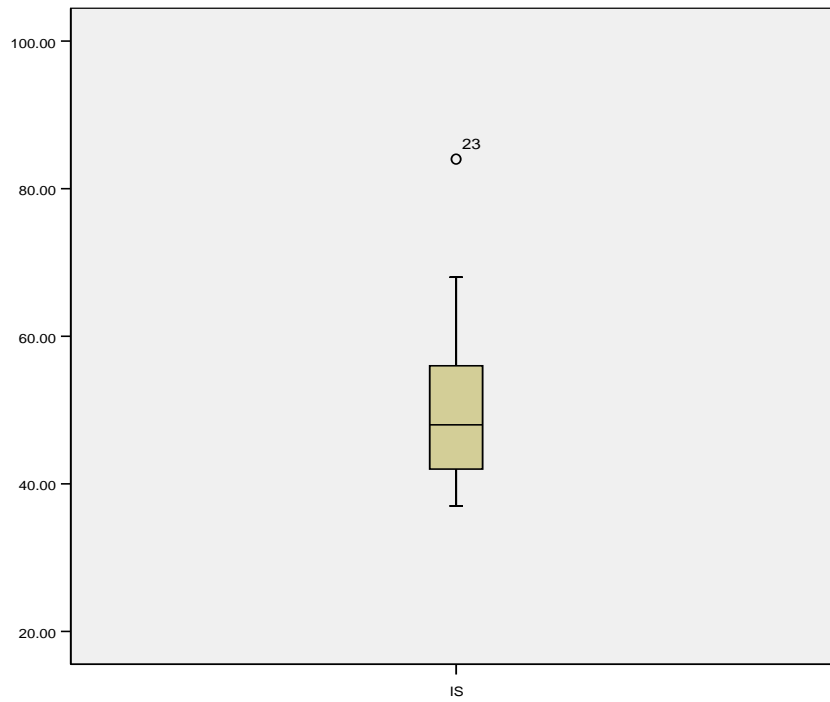
Boxplots were initially produced to visually represent the data set and to identify extreme scores, known as outliers (Dancey & Reidy, 2007). Box plots identified nine outliers in the data. Where outliers were indicated, the completed questionnaires were re-examined to detect any data entry errors. On further inspection the nine outliers were created by three participants. Figures 10 – 17 show the outliers within the data set. Within a boxplot the centre is the median, which is surrounded by a box, the top and bottom of which are the limits within the middle 50% of observations fall (the inter-quartile range). Two lines (also referred to as 'whiskers') come out of the top and bottom of the box which

extend to the most and least extreme scores respectively. If the 'whiskers' are the same length, then the distribution is symmetrical; however, if the top or bottom line is much longer than the opposite line then the distribution is asymmetrical. Outliers on boxplots are represented by a circle and a number against the circle which represents the case number. Therefore, boxplots display the range of scores, the range between which the middle 50% of scores fall, and the median, the upper quartile and lower quartile score (Field, 2009).

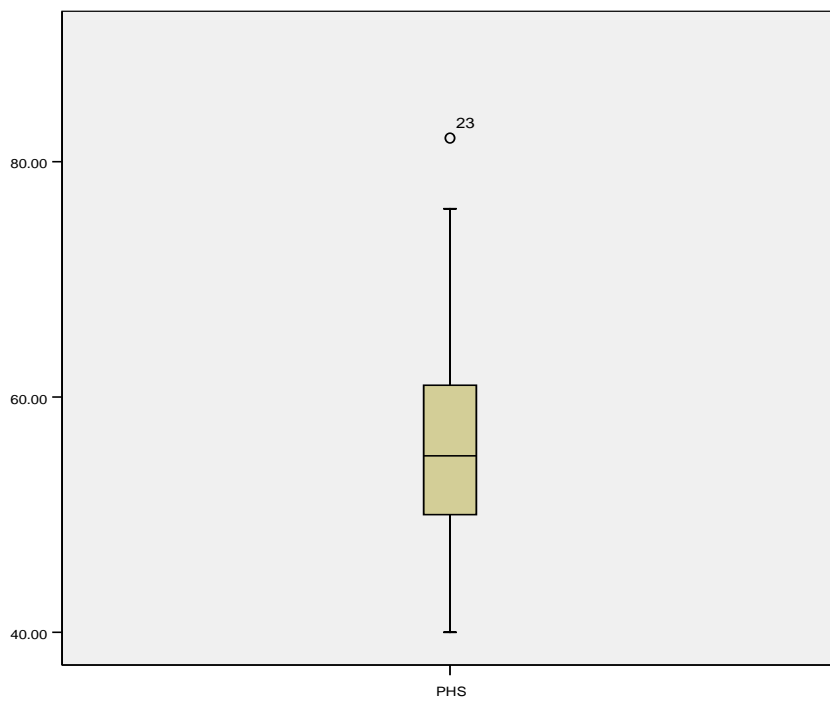
**Figure 10 shows the outlier (case 23) for the subscale Vocational Strain**



**Figure 11 shows the outlier (case 23) for the subscale Interpersonal Strain**

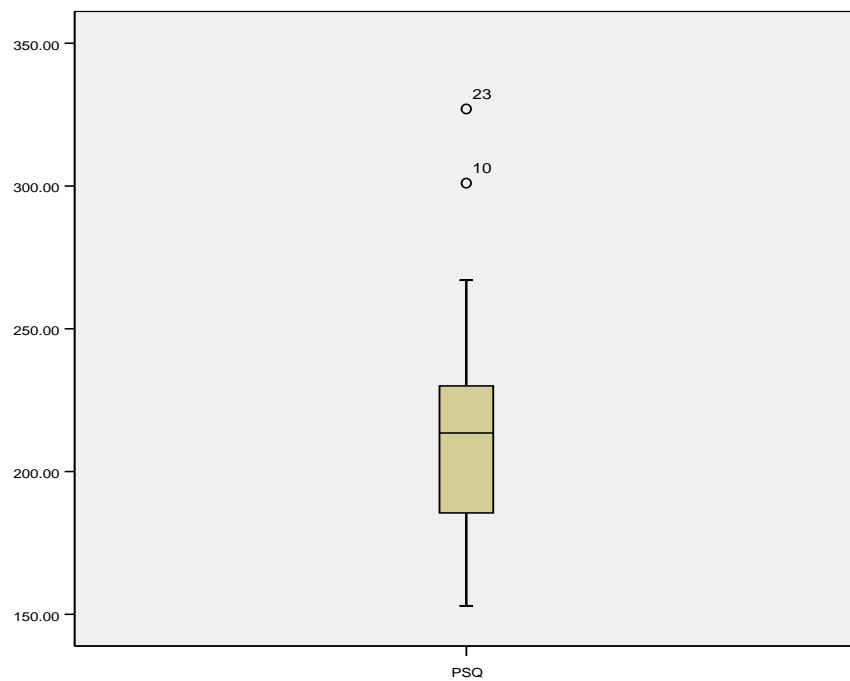


**Figure 12 shows the outlier (case 23) for the subscale Physical Strain**

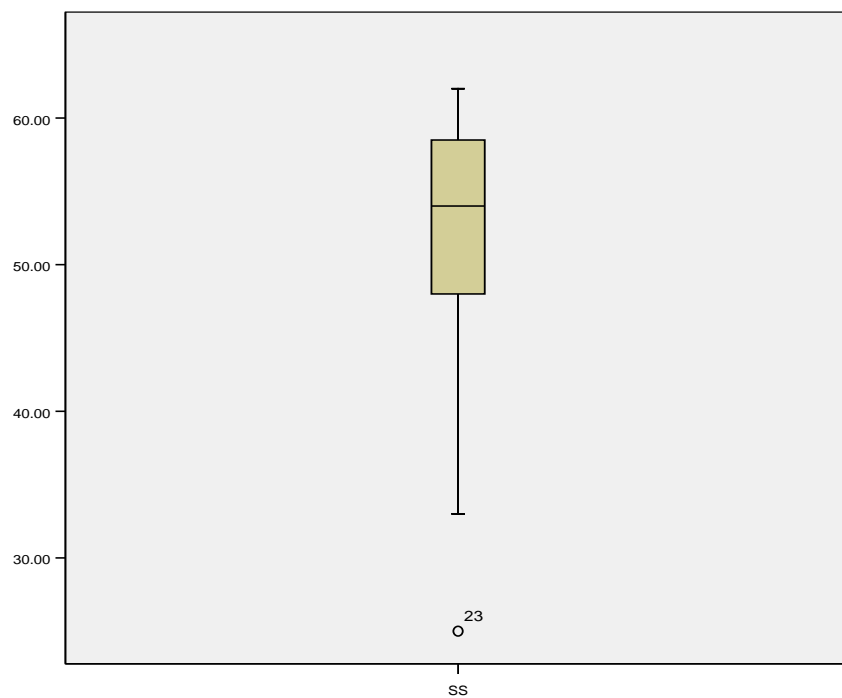




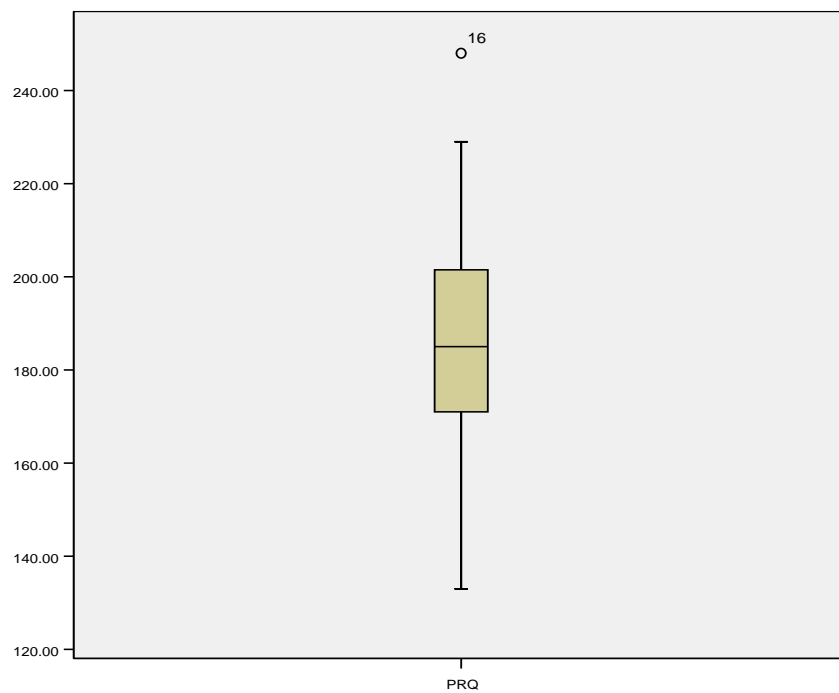
**Figure 13 shows the two outliers (case 10 and 23) for the overall Personal Strain Questionnaire (PSQ)**



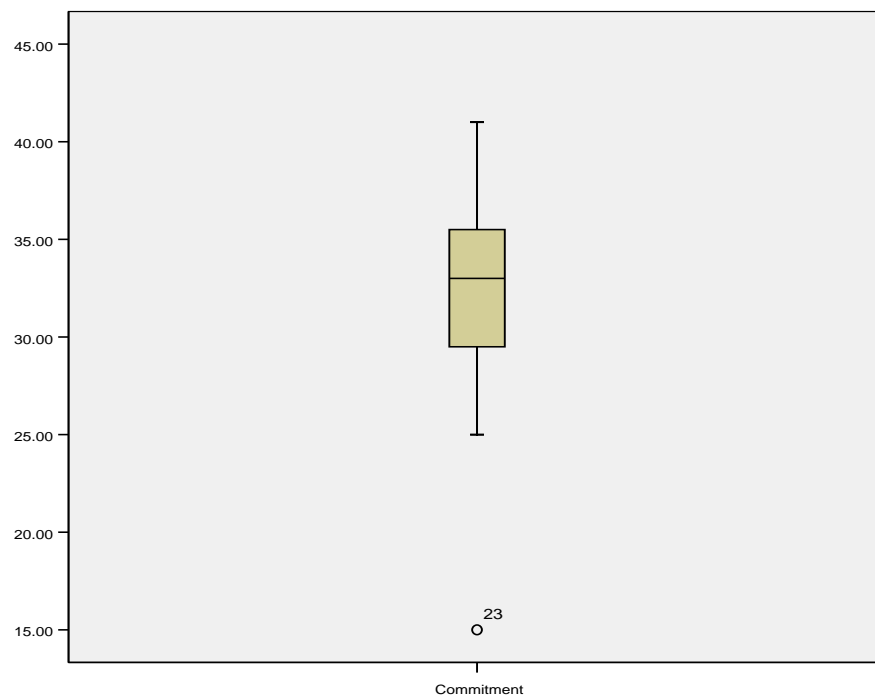
**Figure 14 shows the outliers (case 23) for the subscale Social Support**



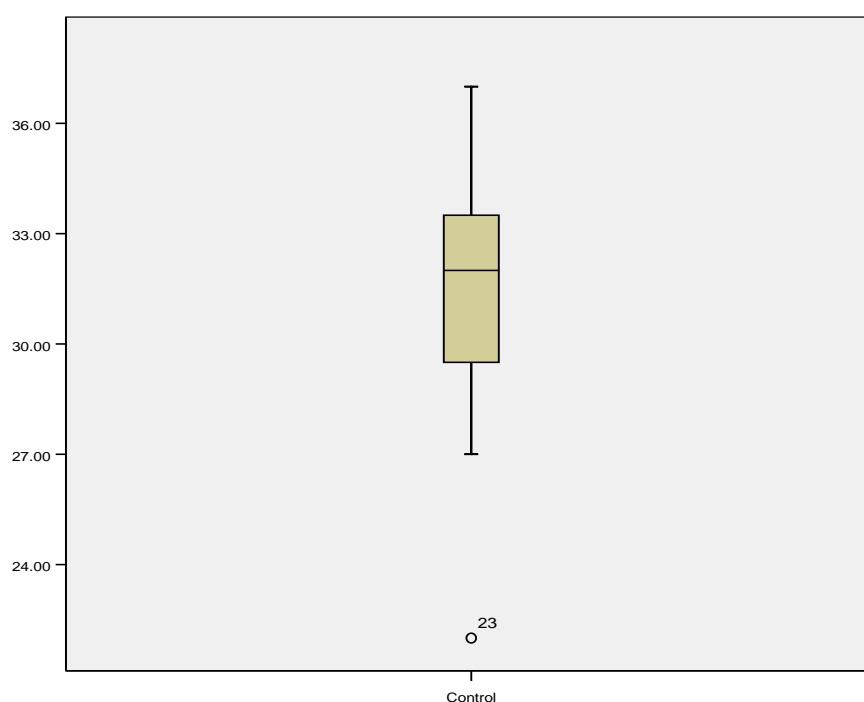
**Figure 15 shows the outlier (case 16) for the overall Personal Resources Questionnaire (PRQ)**



**Figure 16 shows the outlier (case 23) for the commitment variable of the hardiness scale**



**Figure 17 shows the outlier (case 23) for the control variable of the hardiness scale**



According to Field (2009) there are three main options when dealing with outliers: remove the case, transform the data or change the score. It was decided that the nine outliers would remain in the data set for the descriptive statistics, however all three cases were removed when running further statistical analysis. This decision was taken as it was felt important to describe the full sample with regard to levels and sources of perceived occupational stress, experienced strain and coping resources within the group. However, including the outliers in the statistical analysis could have skewed and invalidated the results.

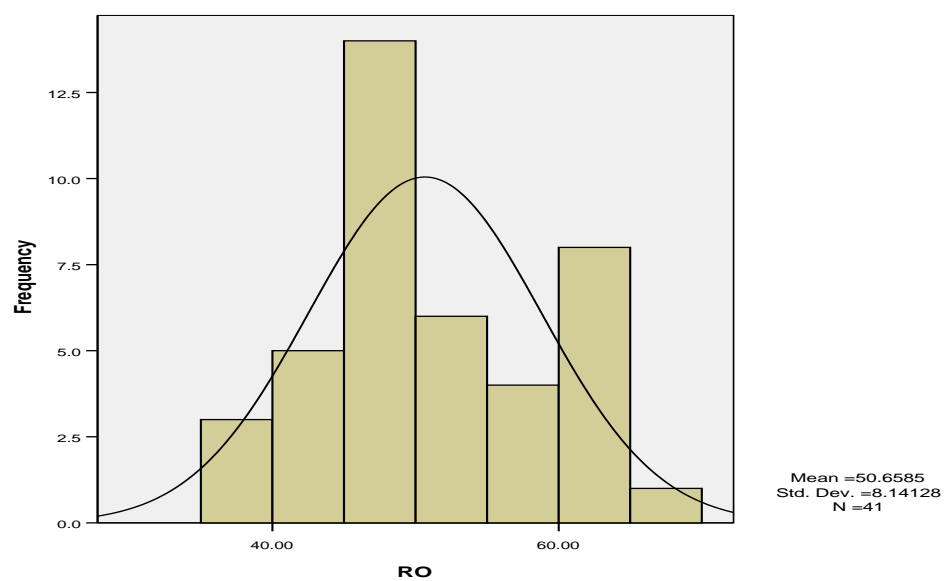
### **2.3. Tests of normality**

Tests of normality were performed on continuous variables. This involved carrying out three tasks: histograms, Shapiro-Wilk, Zskewness and Zkurtosis.

### 2.3.(i) Histograms

Histograms were produced to visually represent the data set. From the histograms, distribution on eight variables appeared not normally distributed. The distribution patterns of these eight variables are depicted in Figures 18 – 24.

**Figure 18 shows the histogram for the Role Overload variable**



**Figure 19 shows the histogram for the Role Insufficiency variable**

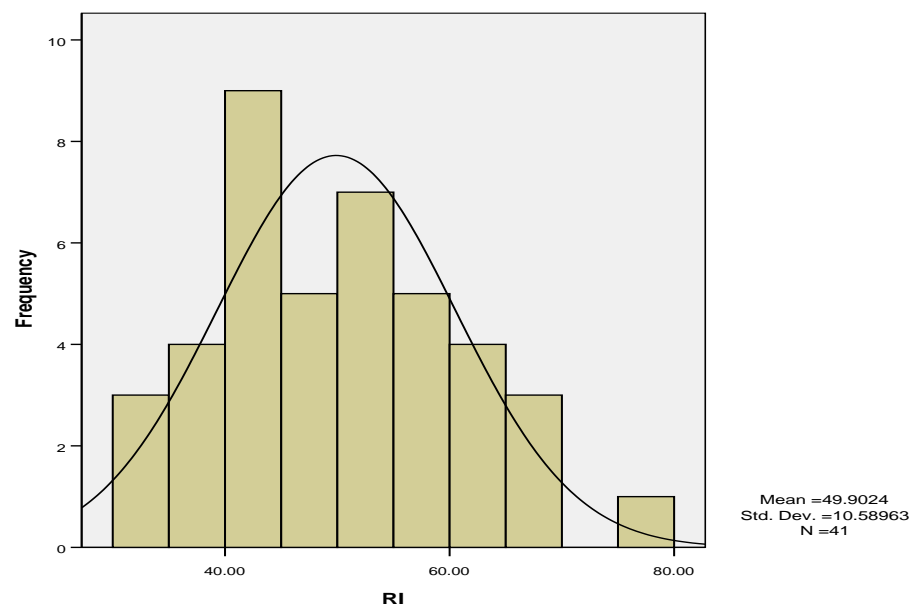


Figure 20 shows the histogram for the Physical Environment variable

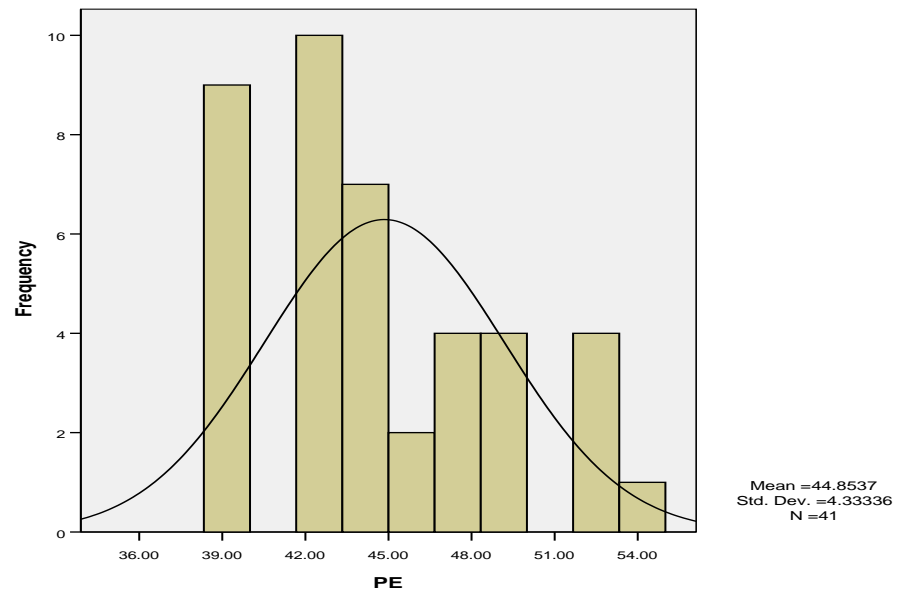


Figure 21 shows the histogram for the Physical Strain variable

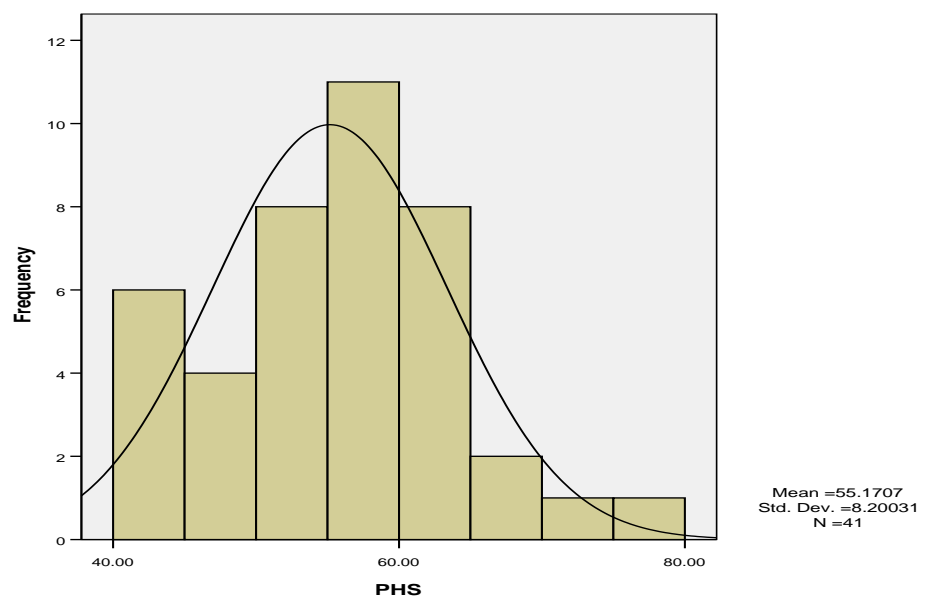


Figure 22 shows the histogram for the Self-Care variable

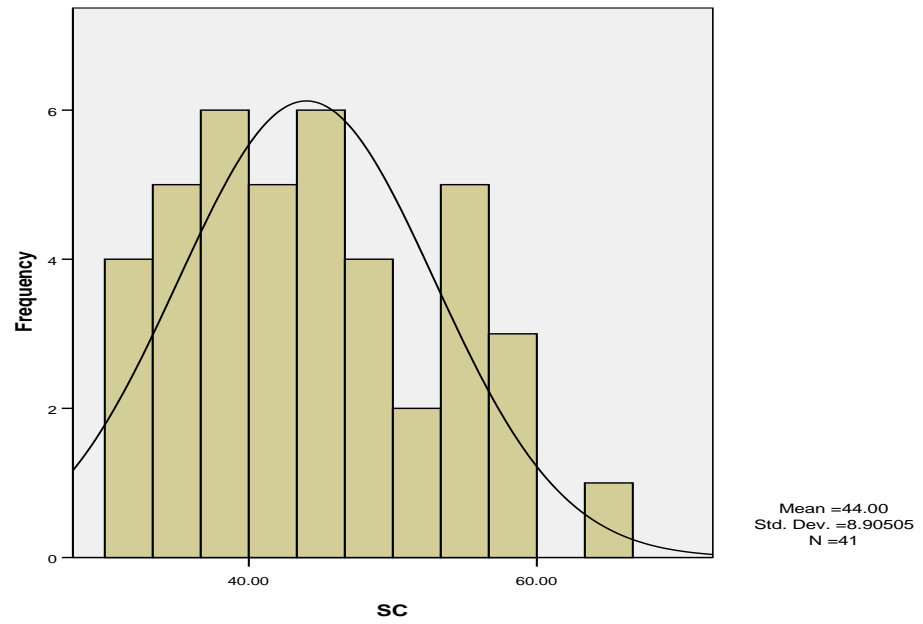
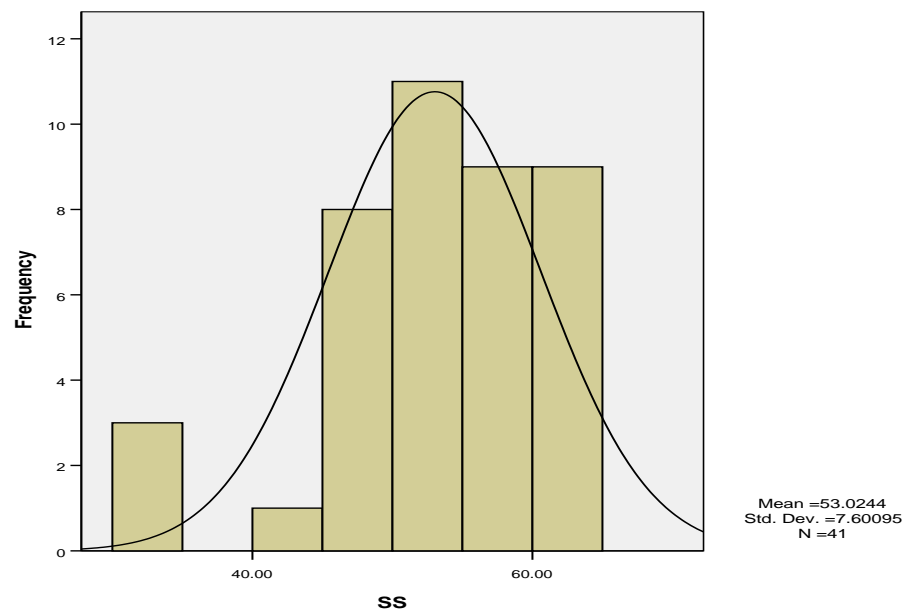
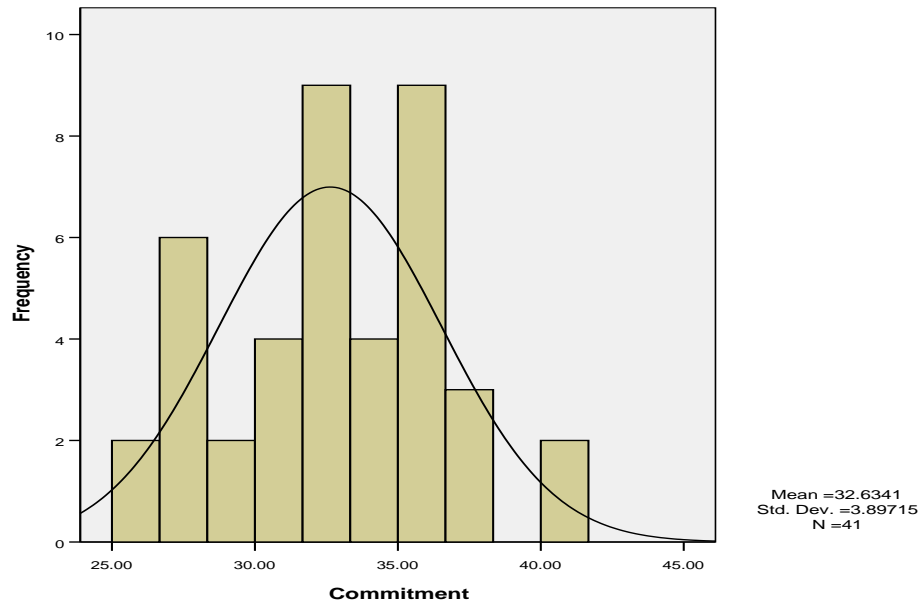


Figure 23 shows the histogram for the Social Support variable



**Figure 24 shows the histogram for the commitment variable**



However, histograms are subjective (Field, 2009) and it was therefore decided to carry out two further tests to quantify the shape of the distribution.

### **2.3.(ii) The Shapiro-Wilk test**

The Shapiro-Wilk test compares the scores in the data set to a normally distributed set of scores with the same mean and standard deviation (Field, 2009). The Shapiro-Wilk test as opposed to the Kolmogorov-Smirnov test was employed as the sample was small, i.e. less than 50 participants (Field, 2009). Table 25 below shows the results of the Shapiro-Wilk normality test. Table 25 shows that four variables were significantly not normally distributed as tested by the Shapiro-Wilk test; Role Overload ( $W = .946$ ,  $p < 0.05$ ), Physical Environment ( $W = .031$ ,  $p < 0.05$ ), Social Support ( $W = .001$ ,  $p < 0.01$ ) and control ( $W = .042$ ,  $p < 0.05$ ).

**Table 25 shows normality using the Shapiro-Wilk test**

Variables	Shapiro-Wilk		
	Statistic	df	Sig.
Role Overload	.946	41	.049
Role Insufficiency	.972	41	.401
Role Ambiguity	.972	41	.413
Role Boundary	.979	41	.649
Responsibility	.973	41	.436
Physical Environment	.940	41	.031
Occupational Roles Questionnaire	.969	41	.310
Vocational Strain	.974	41	.447
Psychological Strain	.982	41	.769
Interpersonal Strain	.951	41	.077
Physical Strain	.982	41	.744
Personal Strain Questionnaire	.980	41	.666
Recreation	.958	41	.132
Self-Care	.946	41	.050
Social Support	.882	41	.001
Rational/cognitive	.967	41	.276
Personal Resources Questionnaire	.967	41	.268
Commitment	.978	41	.598
Control	.944	41	.042
Challenge	.977	41	.565

### **2.3.(iii) Skewness and kurtosis**

Another way to explore if the data is normally distributed is to look at the skewness and kurtosis values. According to Field (2009) the values of skewness and kurtosis should be zero within a normally distributed data set, the further the value is from zero, the more likely it is that the data set is not normally distributed. A positive value on skewness indicates too many scores



on the left of the distribution and a negative value on skewness indicates too many scores on the right of the distribution. Positive values on kurtosis indicate a pointy and heavy-tailed distribution, whereas negative values indicate a flat and light-tailed distribution. Table 26 displays the skewness and kurtosis values of each of the variables.

Table 26 shows positive skew values on the following variables: Role Overload, Role Insufficiency, Role Ambiguity, Role Boundary, Responsibility, Physical Environment, overall ORQ scores, Vocational Strain, Psychological Strain, Interpersonal Strain, Physical Strain, Recreation, Self-Care, Rational/Cognitive and overall resources, which indicates too many low scores. Variables with negative skew values included: overall strain, Social Support, commitment, control and challenge, which indicates too many high scores.

In relation to kurtosis values the following variables had positive kurtosis values: Responsibility, Social Support and challenge, which are indicative of pointy and heavy-tailed distributions. All remaining variables had negative kurtosis values, which are indicative of flat and light-tailed distributions.

**Table 26 shows the skew and kurtosis values of the variables**

Variables	Skewness	Kurtosis
Role Overload	.252	-.932
Role Insufficiency	.342	-.500
Role Ambiguity	.253	-.511
Role Boundary	.071	-.371
Responsibility	.235	.198
Physical Environment	.502	-.576
Occupational Roles Questionnaire	.379	-.467
Vocational Strain	.444	-.111
Psychological Strain	.155	-.629
Interpersonal Strain	.448	-.511
Physical Strain	.223	-.088
Personal Strain Questionnaire	-.208	-.467
Recreation	.541	-.306
Self-Care	.416	-.841
Social Support	-1.148	1.180
Rational/cognitive	.228	-.559
Personal Resources Questionnaire	.288	-.819
Commitment	-.099	-.435
Control	-.063	-.751
Challenge	-.214	.724

Field (2009) further distinguishes between values of skewness and kurtosis and z-score values. Z-scores can compare skewness and kurtosis values in different samples that use different measures and to establish how likely the values of skewness and kurtosis are likely to occur. Skewness and kurtosis values are converted into z-scores following the equation below.

$$Z_{\text{skewness}} = \frac{S - 0}{SE_{\text{skewness}}} \quad Z_{\text{kurtosis}} = \frac{K - 0}{SE_{\text{kurtosis}}}$$

According to Field (2009) a value greater than 1.96 is significant at  $p < 0.05$ . Table 27 depicts the zskewness and zkurtosis values of the variables and shows that two variables (Social Support and commitment) indicate significant skewness.

**Table 27 shows the zskewness and zkurtosis values of the variables**

Variables	ZSkewness	ZKurtosis
Role Overload	.068	1.29
Role Insufficiency	0.93	-0.61
Role Ambiguity	0.69	-0.71
Role Boundary	1.92	-0.44
Responsibility	0.64	0.27
Physical Environment	1.36	-0.80
Occupational Roles Questionnaire	1.03	-0.65
Vocational Strain	1.20	-0.15
Psychological Strain	0.42	-0.87
Interpersonal Strain	1.21	-0.71
Physical Strain	0.60	-0.12
Personal Strain Questionnaire	-0.56	-0.65
Recreation	1.47	-0.42
Self-Care	1.13	-1.16
Social Support	-3.11	1.63
Rational/cognitive	0.62	-0.77
Personal Resources Questionnaire	0.78	-1.13
Commitment	-2.68	-0.60
Control	-0.17	1.04
Challenge	-0.58	0.01

A decision to use non-parametric tests was undertaken based on the results of all of the above tests that indicated not all variables were normally distributed.

#### **2.4. Assumptions of non-parametric tests**

Non-parametric tests make fewer assumptions about the data set and work on the assumption of ranking the data (Field, 2009).

## **2.5. Additional descriptive statistics**

Additional descriptive statistics categorising participant's individual T scores on each of the OSI-R subscales are depicted in the following tables.

Table 28 shows that the majority of participants (n= 31, 70.4%) indicated normal levels of Role Boundary as a source of perceived occupational stress. 22.7% (n= 10) of participants indicated mild levels. 6.8% (n= 3) of participants indicated a relative absence of Role Overload as a source of occupational stress. No participants scored within the maladaptive level category on this perceived stress subscale.

**Table 28: Descriptive statistics for participants individual T scores on the Role Overload subscale of the OSI-R Occupational Role Questionnaire (ORQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of stress (T-scores <40)	37-38	3	6.8
Normal range (T-scores 40-59)	40-57	31	70.4
Mild levels (T-scores 60-69)	60-66	10	22.7
Maladaptive levels (T-scores >70)	_____	_____	_____

Table 29 shows that the majority of participants (n= 26, 59.0%) indicated normal levels of Role Insufficiency as a source of perceived stress, with 20.4% (n= 9) indicating mild levels. Eight participants (18.1%) of participants indicated a relative absence of Role Insufficiency, as a source of occupational stress, with one participant (2.3%) reporting maladaptive perceived stress levels on this subscale.

**Table 29: Descriptive statistics for participants individual T scores on the Role Insufficiency subscale of the OSI-R Occupational Role Questionnaire (ORQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of stress (T-scores <40)	32-39	8	18.2
Normal range (T-scores 40-59)	41-59	26	59.0
Mild levels (T-scores 60-69)	61-67	9	20.4
Maladaptive levels (T-scores >70)	76	1	2.3

Table 30 shows that the majority of participants (n= 35, 79.5%) indicated normal levels of Role Ambiguity as a source of perceived stress, with six participants (13.6%) indicating mild levels. Two participants (4.5%) indicated a relative absence of Role Ambiguity as a source of occupational stress. One participant (2.3%) indicated significant maladaptive levels of Role Ambiguity as a source of perceived stress.

**Table 30: Descriptive statistics for participants individual T scores on the Role Ambiguity subscale of the OSI-R Occupational Role Questionnaire (ORQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of stress (T-scores <40)	33-39	2	4.5
Normal range (T-scores 40-59)	41-59	35	79.5
Mild levels (T-scores 60-69)	63-67	6	13.6
Maladaptive levels (T-scores >70)	70	1	2.3

Table 31 shows that the majority of participants (n= 32, 72.6%) indicated normal levels, with nine participants (20.4%) indicating mild levels of Role Boundary as source of perceived occupational stress. Two participants (4.5%) indicated a relative absence of Role Boundary as a source of occupational stress. One participant (2.3%) indicated significant maladaptive levels of Role Boundary.



**Table 31: Descriptive statistics for participants individual T scores on the Role Boundary subscale of the OSI-R Occupational Role Questionnaire (ORQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of stress (T-scores <40)	36	2	4.5
Normal range (T-scores 40-59)	40-59	32	72.6
Mild levels (T-scores 60-69)	61-69	9	20.4
Maladaptive levels (T-scores >70)	72	1	2.3

Table 32 shows that 31 participants (70.4%) indicated normal levels of Responsibility as a source of perceived occupational stress. The remaining 13 participants (29.5%) indicated a relative absence of this subscale as a source of occupational stress.

**Table 32: Descriptive statistics for participants individual T scores on the Responsibility subscale of the OSI-R Occupational Role Questionnaire (ORQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of stress (T-scores <40)	29-39	13	29.5
Normal range (T-scores 40-59)	40-59	31	70.4
Mild levels (T-scores 60-69)	_____	_____	_____
Maladaptive levels (T-scores >70)	_____	_____	_____

Table 33 shows that 40 participants (90.8%) indicated normal levels on the Physical Environment subscale of perceived stress. The remaining four participants (9.1%) indicated a relative absence of this subscale as a source of occupational stress.

**Table 33: Descriptive statistics for participants individual T scores on the Physical Environment subscale of the OSI-R Occupational Role Questionnaire (ORQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of stress (T-scores <40)	39	4	9.1
Normal range (T-scores 40-59)	40-55	40	90.8
Mild levels (T-scores 60-69)	_____	_____	_____
Maladaptive levels (T-scores >70)	_____	_____	_____

Table 34 shows that 28 participants (63.6%) indicated normal levels of Vocational Strain, with six participants (13.6%) indicating mild maladaptive levels and a relative absence of this source of experienced strain respectively. Four participants (9.1%) indicated significant maladaptive levels of Vocational Strain as a source of experienced strain.

**Table 34: Descriptive statistics for participants individual T scores on the Vocational Strain subscale of the OSI-R Personal Strain Questionnaire (PRQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of strain (T-scores <40)	34-39	6	13.6
Normal range (T-scores 40-59)	41-58	28	63.6
Mild levels (T-scores 60-69)	62-69	6	13.6
Maladaptive levels (T-scores >70)	73-79	4	9.1

Table 35 shows that 28 participants (63.6%) indicated normal levels of Psychological Strain, with nine participants (20.4%) indicating mild levels of this subscale as a source of experienced strain. Four participants (9.1%) indicated significant maladaptive levels of experienced strain on this subscale, with the remaining three participants (6.8%) indicating a relative absence of Psychological Strain as a source of experienced strain.

**Table 35: Descriptive statistics for participants individual T scores on the Psychological Strain subscale of the OSI-R Personal Strain Questionnaire (PSQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of strain (T-scores <40)	36-38	3	6.8
Normal range (T-scores 40-59)	40-59	28	63.6
Mild levels (T-scores 60-69)	60-69	9	20.4
Maladaptive levels (T-scores >70)	71-82	4	9.1

Table 36 shows that 31 participants (70.4%) indicated normal levels of Interpersonal Strain, with eight participants (18.2%) indicating mild maladaptive levels of this subscale as a source of experienced strain. Four participants (9.1%) indicated a relative absence of Interpersonal Strain as a source of experienced strain. One participant (2.3%) indicated a significant maladaptive level of experienced strain on this subscale.

**Table 36: Descriptive statistics for participants individual T scores on the Interpersonal Strain subscale of the OSI-R Personal Strain Questionnaire (PSQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of strain (T-scores <40)	37-39	4	9.1
Normal range (T-scores 40-59)	41-58	31	70.4
Mild levels (T-scores 60-69)	60-68	8	18.2
Maladaptive levels (T-scores >70)	84	1	2.3

Table 37 shows that 30 participants (68.1%) indicated normal levels of Physical Strain as a source of experienced strain. Ten participants (22.7%) indicated mild maladaptive levels of Physical Strain, with the remaining five participants (11.4%) indicating significant maladaptive levels of experienced strain on this subscale.

**Table 37: Descriptive statistics for participants individual T scores on the Physical Strain subscale of the OSI-R Personal Strain Questionnaire (PSQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Relative absence of strain (T-scores <40)	_____	_____	_____
Normal range (T-scores 40-59)	40-58	30	68.1
Mild levels (T-scores 60-69)	61-68	10	22.7
Maladaptive levels (T-scores >70)	71-82	5	11.4

Table 38 shows that 31 participants (70.4%) indicated average levels of Recreational coping resources. Eight participants (18.2%) indicated mild deficit levels in Recreational coping resources, with the remaining five participants (11.4%) indicating strong levels of coping resources on this subscale.

**Table 38: Descriptive statistics for participants individual T sores on the Recreation subscale of the OSI-R Personal Resources Questionnaire (PRQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Lack of coping (T-scores <30)	_____	_____	_____
Mild deficits in coping (T-scores 30-39)	36-39	8	18.2
Average coping (T-scores 40-59)	41-57	31	70.4
Strong coping (T-scores ≥60)	61-72	5	11.4

Table 39 shows that 27 participants (61.3%) indicated average levels of Self-Care coping resources. Sixteen participants (36.3%) indicated mild deficit levels in Self-Care coping resources. One participant (2.3%) indicated a strong level of coping on this subscale.



**Table 39: Descriptive statistics for participants individual T scores on the Self-Care subscale of the OSI-R Personal Resources Questionnaire (PRQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Lack of coping (T-scores <30)	—	—	—
Mild deficits in coping (T-scores 30-39)	31-38	16	36.3
Average coping (T-scores 40-59)	40-59	27	61.3
Strong coping (T-scores ≥60)	64	1	2.3

Table 40 shows that 30 participants (68.1%) indicated average levels of coping resources on the Social Support subscale. Ten participants (22.7%) indicated strong levels of Social Support coping. Three participants (6.8%) indicated mild deficit levels in this coping resource. One participant (2.3%) reported a lack of Social Support as a coping resource.

**Table 40: Descriptive statistics for participants individual T scores on the Social Support subscale of the OSI-R Personal Resources Questionnaire (PRQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Lack of coping (T-scores <30)	25	1	2.3
Mild deficits in coping (T-scores 30-39)	33-34	3	6.8
Average coping (T-scores 40-59)	40-59	30	68.1
Strong coping (T-scores ≥60)	60-62	10	22.7

Table 41 shows that 22 participants (49.9%) indicated average coping resources on the Rational/Cognitive subscale. Ten participants (22.7%) indicated mild deficit levels, with nine participants (20.4%) reporting a lack of coping resources on this subscale. The remaining three participants (6.8%) reported strong levels of coping on this coping resource subscale.

**Table 41: Descriptive statistics for participants individual T scores on the Rational/Cognitive subscale of the OSI-R Personal Resources Questionnaire (PRQ) (n = 44)**

Category	Participants T-score range	Frequency	%
Lack of coping (T-scores <30)	21-29	9	20.4
Mild deficits in coping (T-scores 30-39)	31-37	10	22.7
Average coping (T-scores 40-59)	41-58	22	49.9
Strong coping (T-scores ≥60)	60-71	3	6.8

## 2.6. Age categories

Respondents ranged in age from 21 years to 56 years, with a mean of 32.9 years. Two categories were developed in order to explore differences between 'younger' and 'older' trainees. The two categories were developed by classifying all participants 33 years and above (mean age of the sample) as 'older' trainees and those participants 32 years and under as 'younger' trainees.

## **2.7. Point-biserial correlations**

Point-biserial correlation is used when a variable is a discrete dichotomy. A point-biserial correlation is a Pearson correlation when the dichotomous variable is coded with 0 for one category and 1 for the other category, with the correlation coefficient reported as  $r_{pb}$  (Field, 2009). Point-biserial correlation was used for age (younger or older) gender (male or female) and intensity of trainee (low or high) as all three were considered to be discrete dichotomous variables.

## **2.8. Bonferroni corrections**

Bonferroni corrections are utilised to reduce Type 1 errors (i.e. reject the null hypothesis when the null hypothesis is true) when multiple tests are conducted (Nakagawa, 2004). The standard Bonferroni procedure employs a modified significant criterion ( $\alpha / k$ , where  $k$  is the number of statistical tests conducted on data set).

However, a problem associated with the standard Bonferroni procedure is a substantial reduction in the statistical power of rejecting an incorrect null hypothesis in each test and thereby increasing a Type II error. According to Perneger (1998) there is no formal consensus when Bonferroni procedures should be employed. Cohen (1990) argues that many researchers may think that their results are more significant if the results pass the rigor of Bonferroni corrections, but this is logically incorrect. Nakagawa (2004) concludes that Bonferroni corrections should be discouraged and to report effect size and/or confidence intervals for effect size. It was therefore decided that the data in this

study would be reported using effect size and a standard Bonferroni correction procedure would not be employed.

## 2.9. Justification for using Spearman's correlation coefficients

According to Dancey and Reidy (2007) performing a correlational analysis discovers whether there is a relationship between variables, which is unlikely to occur by sampling error. Where appropriate, Spearman's correlation coefficients were employed in this study as the data was not normally distributed.

## 2.10. Additional Spearman's correlation coefficients

Table 42 depicts that ORQ is significantly positively correlated with PSQ ( $r_s = .523$ ,  $p < 0.01$ ) and negatively, but not significantly correlated with PRQ ( $r_s = -.283$ ,  $p > 0.05$ ). PSQ was significantly negatively correlated with PRQ ( $r_s = .460$ ,  $p < 0.01$ ). Which means as stress scores increase, so too does strain scores. As coping resource scores increase, stress and strain scores decrease.

**Table 42: Intercorrelation's of the three domains of the OSI-R**

OSI-R	ORQ		PSQ		PRQ	
	$r_s$	p-value	$r_s$	p-value	$r_s$	p-value
ORQ	—	—	.523**	.000	-.283	.073
PSQ	.523**	.000	—	—	-.460**	.002
PRQ	-.283	.073	-.460**	.002	—	—

ORQ = occupational roles questionnaire; PSQ = Personal strain Questionnaire; PRQ = personal resources questionnaire. \*\* $p < .01$

### **2.11. Multiple regression**

Regression analysis is an extension of correlational analysis and is employed to discover the effect of one variable( $x$ ) on another ( $y$ ) and allows prediction of  $y$ , from  $x$  (Dancey & Reidy, 2007).

#### **2.11.(i) Multiple regression and non-parametric data**

According to Kerlinger and Lee (2000) most analytic problems of behavioural research can be adequately handled with parametric methods. The F-test, t-test and other parametric approaches are robust in the sense that they perform well even when the assumptions behind them are violated, unless the violations are gross or multiple. As the assumptions of parametric approaches within the data set were not gross or multiple, it was decided that a multiple regression analysis could be run.

#### **2.11.(ii) Forced entry method**

Forced entry method of regression was employed in this study in which all predictor variables (commitment and control) were forced into the model simultaneously and no decision about the order in which the predictor variables were entered was made (Kerlinger & Lee, 2000).

#### **2.11.(iii) Multicollinearity**

According to Field (2009) there should be no perfect linear relationship between two or more of the predictor variables. SPSS provides measures to assess whether there is collinearity in the data; the VIF and tolerance statistics (with tolerance being 1 divided by the VIF). The largest VIF value should not be

greater than 10; if the average VIF value is substantially greater than 1, then the regression may be biased; tolerance below 0.1 indicates a serious problem and tolerance below 0.2 indicates a potential problem (Field, 2009).

The VIF values for the variables in the study were: commitment = 1.222 and control = 1.222. The tolerance values were: commitment = .818 and control = .818. The VIF values in this study are all well below 10 and the tolerance statistics are all above 0.2; therefore it can be concluded that there is no collinearity within the data. The average VIF value was calculated by adding the VIF values of both predictor variables and dividing it by the number of predictors:

$$VIF = \frac{\sum_{i=1}^k VIF_i}{k} = \frac{1.222 + 1.222}{2} = 1.222$$

In addition the variance proportions vary between 0 and 1 and each predictor variable should be distributed across different dimensions (Field, 2009). In this study each predictor variable has most of its variance loaded onto a different dimension (commitment had 99% of variance on dimension two and control had 89% of variance on dimension three), which further indicated no multicollinearity.

#### **2.11.(iv) Residuals**

The purpose of examining residuals in regression analysis is to firstly isolate points for which the model fits poorly and secondly to isolate points that exert an undue influence on the model (Field, 2009). Within the data there were no cases highlighted that indicated a standardised residual  $\pm 2$ , which gave no cause for concern.

#### **2.11.(v) Durbin-Watson test**

The Durbin-Watson tests the assumption of independent errors. If the Durbin-Watson is less than 1 or greater than 3 there may be a problem, with the closer the value is to 2 the better (Field, 2009). The Durbin-Watson value in this study was 1.85.



### **3. Extended Discussion**

#### **3.1. Extended discussion of extended results**

##### **3.1.(i) Discussion of individual T scores on subscales of the OSI-R**

The majority of participants (79.5%) scored within normal levels on the perceived stress subscale Role Ambiguity. Trainee IAPT therapists and indeed the IAPT service as a whole, have clear guidelines and set Government targets to meet. It could therefore be argued that trainees have a very clear remit, know what is expected of them, and how their work will be evaluated.

In relation to the Physical Environment subscale, 9.1% of participants reported a relative absence of this source of stress, with the remaining 90.8% scoring within normal levels on this perceived stress subscale. This is quite an interesting result, given that research (Skarbek, 1997) exploring the setting in which therapy treatment in the NHS is offered, frequently consists of shabby, poorly furnished rooms and designed predominately for medical practice. All trainees that took part in the present study were recruited from adult Primary Care Services, and a possible explanation for a lack of participants reporting their Physical Environment as a source of stress may be related to the amount of funding that has been ploughed into adult services by the Government in recent years, (not just relating to IAPT services). Substantial money has been spent on buildings; purpose built psychotherapy centres, set within communities offering modern accommodation, with appropriate therapeutic equipment i.e., therapy rooms consisting of comfortable furniture and not being dominated by medical equipment.

An interesting result was found on the Rational/Cognitive coping subscale. 20.4% of participants reported lack of coping relating to this subscale, whilst only 6.8% reported strong Rational/Cognitive coping resources. Osipow (1998) states that high scorers (indicating strong levels of coping) may report that they have a systematic approach to solving problems, thinking through the consequences and have the ability to identify important elements of the problems encountered. Given that IAPT trainees are predominately trained and much of their clinical work involves cognitive behavioural therapy (CBT) the high percent (20.4%) of participants reporting a lack of Rational/Cognitive coping is an interesting finding. However, a possible explanation for the present study findings may relate to previous research (Forrest, Elman, Gizara & Vacha-Hasse, 1999; Schoener, 1999), identifying that psychotherapists, including trainee psychotherapists are not very apt in 'practicing what they preach'. As individuals trained to attend to others' emotional state, O'Connor (2001) argues that psychologists are at increased risk for overlooking and ignoring their own emotional needs and reactions and responses to these needs. In relation to these emotional needs or difficulties, psychologists may be likely to minimize and deny them (Barnett, Baker, Elman & Schoener, 2007), overlooking rational thinking processes, in an attempt to present as a strong individual, and not give the appearance of a weak individual in need of their own therapy (Sherman, 1996) or indeed therapeutic techniques that they employ with their clients.

### **3.1.(ii) Internal correlations of the OSI-R three domains (perceived occupational stress, experienced strain and coping resources)**

The internal correlations of the 14 subscale domains of perceived stress, experienced strain and coping resources of the OSI-R (Osipow 1998) domains indicate a strong relationship between perceived occupational stress and experienced personal strain. That is, the more perceived stress participants reported in their occupational roles, the more personal strain they experienced.

A negative relationship was found between perceived stress and coping responses, which suggest that the more insufficient personal coping resources reported by the participants, the more occupational stress was perceived. An inverse relationship was also reported between experienced strain and coping resources, indicating that participants who perceived they had insufficient personal coping resources, also reported greater experienced personal strain.

The results of this study support the interactional model of occupational stress proposed by Osipow and Spokane (1984). Osipow and Spokane's (1984) interactional model of occupational stress is based on the assumption that there is an interaction between the occupational role and the individual's ability to cope with the negative aspects of the occupational roles, which determine the level of experienced strain (Richard & Krieshok, 1989). The findings of this study are consistent with other studies (Fogarty et al., 1999; Decker & Borgen, 1993) that also support Osipow and Spokane (1984) interactional model of occupational stress.

### **3.2. Strengths of paper**

#### **3.2.(i) Response rate**

The present study achieved a response rate of 73% which compares favourably with other studies that have utilised questionnaires to explore occupational stress and trainee mental health professionals. Kumary and Baker (2008) achieved a 41% response rate in their study exploring occupational stress in UK trainee counselling psychologists. In addition, Cushway (1992) reported a 76% response rate from a study exploring occupational stress and trainee clinical psychologists.

#### **3.2.(ii) Original contribution to research base**

IAPT is a Government funded initiative that was introduced in 2006, with the objectives to ensure that evidence-based psychological therapy is made more available to individuals, and to increase the happiness and productivity of the population. This initiative, totalling £300 million, constitutes as the largest ever programme in UK to support the delivery of psychological therapies within the NHS (Marzillier & Hall, 2009). To date, no published research has been conducted with IAPT therapists and/or trainees and occupational stress. Therefore, this piece of research is novel; both within the field of IAPT, and in its contribution to occupational stress literature. It would be hoped that the present study provides a foundation for future research within IAPT services.

### **3.3. Limitations of paper**

#### **3.3.(i) Limited sampling frame**

Although the response rate was high (73%), the number of participants involved in the present study was relatively low ( $n = 44$  out an available sampling frame of 60 participants). Particularly, in comparison to two other two studies exploring occupational stress in trainee mental health professionals, which recruited 287 (Cushway, 1992) and 109 participants (Kumary & Baker, 2008) respectively. It could be argued that the present study lacked the number of participants to produce results that could be generalised across an IAPT trainee population, which currently consists of approximately 1,435 trainees across England (Department of Health, 2008a).

#### **3.3.(ii) Self-completed questionnaires**

In terms of methodological difficulties, the present study relied on perception or subjective perceived occupational stress, experienced strain and coping resources. According to Robson (1993) there are problems relating to self-completed questionnaires, including little or no check can be carried out on the honesty or seriousness of responses and responses have to correspond with predetermined boxes which may or may not be appropriate.

#### **3.3.(iii) Social desirability effect**

A limitation that is linked with self-report measures is the issue of social desirability effect. According to Dyer (1995) many forms of behaviour are governed by strong social norms which define certain forms of behaviour as more acceptable than others. The social desirability effect is a reflection of the

desire of research participants to conform to such general social norms. Therefore, participants may be unwilling to report negative feelings, to criticise others or highlight a weakness. The general aim of social desirability is to limit the extent to which participants are willing to respond to the requirements of the experimental situation in a way which accurately reflects their true beliefs or feelings.

The issue of social desirability may be particularly relevant for the present study's sample; as occupational stress may be viewed as a weakness for some individuals. Although the information sheet and the researcher reiterated to participants, that the completed questionnaires were confidential and anonymous, it could be argued that some participants may still have felt uncomfortable reporting high perceived occupational stress in fear of being recognised and identified to management.

### **3.3.(iv) Response bias**

As the present study involved an opt-in method of recruitment, there may have been a response bias, related to the characteristics of the respondents. It is not known whether sources and levels of perceived occupational stress, experienced strain and coping resources of the non-responders were different from responders. It could be argued that those participants, who did not opt-in to the study and who therefore did not complete a questionnaire, are individuals who are most at risk of occupational stress.

Barr, Spitzmuller and Stuebing (2008) argue that non-response appears to be common in organisational research, in addition to the belief that voluntary research participants differ systematically from those who refuse to participate in research studies. Rogelberg, Luong, Sederburg and Cristol (2000) have put forward an organisational survey response behaviour model, which divides non-respondents into two groups: active non-respondents, and passive non-respondents. Active non-respondents are individuals who consciously decide not to complete a survey, whilst passive non-respondents are classed as individuals who fail to complete a survey because of extenuating circumstances (Rogelberg et al., 2003).

According to Spitzmuller, Glenn, Barr, Rogelberg and Daniel (2006), respondents and passive non-respondents perceive their organisation as more procedurally just, as providing more social support, and as providing for a more balanced social exchange relationship than active non-respondents. In comparison, they concluded that active non-respondents were found to be less satisfied with and committed to their organisation than passive non-respondents and respondents.

An interesting study by Barr et al. (2008) who investigated whether role overload, role ambiguity and role conflict experienced by individuals relate to organisational survey response behaviour. They concluded that perceived role overload increased the likelihood of non-response. This suggests that individuals with increased overload may not have time to complete surveys and/or those individuals may resent the organisation for their high workload.

Role ambiguity decreased the likelihood of non-response, whilst role conflict was not significantly related to non-response.

### **3.3.(v) Limited demographic information gathered**

The Department of Health (2008a) states that high-intensity IAPT therapists are likely to be drawn from the professions of clinical psychology and psychotherapy, as well as individuals with experience of mental health including nurses and counsellors. In addition, low-intensity IAPT trainees are likely to be drawn from wider sources. The present study did not ask for information regarding relevant clinical experience or previous occupation prior to enrolling on the IAPT programme, which may have been useful, to further explore the role of clinical experience in occupational stress. In addition, the relationship status of trainees was not explored in the present study.

### **3.3.(vi) Organisational climate**

This study did not take into account a measure of the organisational climate and culture or management style of the two participating NHS Trusts. This information could have provided a useful insight into the context in which the participants in the present study fulfil their work roles and interactions. This would have also been useful to explore whether the two employing NHS Trusts had a different organisational climate, structure and management and how this impacts on the perceived occupational stress of trainees working within those working environments.



### **3.4. Recommendations for future research**

#### **3.4.(i) Explore more demographic variables**

Future research would be useful in exploring the number of years clinical experience trainee IAPT therapists have, prior to enrolling on the IAPT programme. Results from other studies (Layne, Hohenshil & Singh, 2004) have concluded that as the number of years experience has increased, the level of stress and strain has decreased.

#### **3.4.(ii) Individual and situational differences**

Recent evidence suggests a continuing need for future research to explore the various ways in which the personality of an individual may affect stress and strain outcomes. It is also important that such research not only focuses on individual differences, but consider situational differences such as job-family variables (Decker & Borgen, 1993). Personal or family demands can influence an individual at work in the same way that stress at work can adversely affect family/personal life. Although the present study did explore 'hardiness personality traits', it did not account for personal stress (outside of the working environment) that may have been experienced by trainees. Future research may wish to include (alongside occupational stress measures) a measure that explores an individual's current personal stress.

#### **3.4.(iii) Professional coping resources**

It is possible that the OSI-R (Osipow, 1998) measures more generic coping such as recreation and social support, rather than professional coping resources, such as support from a supervisor. Future studies may need to

consider using a measure of professional coping resources which might have a more direct effect on occupational stress and strain, rather than examining personal coping resources (Layne et al., 2004).

#### **3.4.(iv) Incorporating objective measures of stress**

As mentioned previously, self-completing questionnaires have several difficulties, including subjectivity. It may be useful in future research to consider correlating scores obtained on a scale such as the OSI-R (Osipow, 1998) with other forms of measuring occupational stress, such as; absenteeism/sickness records which may provide a more objective measure of occupational stress.

#### **3.4.(v) Qualitative component**

Although self-completed questionnaires can be useful to gain a broad sense of what is going on for participants within a sample, from a research process perspective, future research may want to include interviews or focus groups, subsequent to the completion, scoring and analysing of occupational stress questionnaires. Conducting these interviews and/or focus groups may provide added information on qualitative explanations for scores obtained on the questionnaires. In addition, this added information may assist in making a definitive assessment of the findings and more specific recommendations. It would also be interesting to explore what solutions and suggestions trainees may come up themselves, with regard to resolving identified difficulties they are faced with.

### **3.4.(vi) Longitudinal study**

Since this study was cross-sectional, it offers no direct evidence that individual perceived occupational stress, experienced personal strain and coping resources change, as they progress in their careers. It would be interesting to explore trainees' perceived occupational stress at different transactional points in their training, for example at the beginning of enrolling, during exam time and at the end of their training.

### **3.5. Implications for clinical practice**

#### **3.5.(i) Trainee therapists and the role of personal therapy**

According to Cushway (1992) training to become a mental health professional makes you susceptible to perceived occupational stress and experienced strain. Although this study concluded that as a collective group 95.4% of participants had levels of perceived occupational stress within average levels, there were participants (2.3%) that indicated mild levels of occupational stress, and participants indicating mild or significant strain levels (9.2% and 4.6% respectively). In relation to coping resources, 6.9% of participants reported mild deficits in coping. It is therefore of interest to briefly explore the role that personal therapy has, in the training of mental health professionals.

Traditionally, personal therapy has been regarded as a vital element in the professional training of therapists; however this aspect of training now appears to be much less widely observed (Wampler & Strupp, 1976). Some therapy training programmes indicate that the difficulty of negative effects on students is best resolved by ensuring the student receives their own therapy, however,

other training providers disagree (Greenberg & Steller, 1981). A debate currently exists as to whether personal therapy should be compulsory for therapy students (Truell, 2001).

Therapists report high levels of distress in a variety of areas, including depression, drinking problems, relationship difficulties and feeling of loneliness and isolation (Dearing, Maddux & Tangney, 2005). Psychoanalytically oriented therapists tend more than others to believe that personal therapy is necessary for the therapist (Clark, 1986), and is an important and necessary training requirement (Macran, Stiles & Smith, 1999). Researchers (Norcross, Strausser-Kirkland & Missar, 1988) have suggested a variety of interrelated mechanisms by which personal therapy might increase therapists' effectiveness. These have included: helping to alleviate stresses and strains inherent in practicing therapy; improve therapists' awareness of their own problems and areas of conflict; experience how it feels to be a client; observing another therapists in action and finally by demonstrating how therapy can work, personal therapy can increase the therapist's confidence in the power of the therapeutic process and the usefulness of the underlying theory (Norcross et al., 1988).

In addition to experiencing the pressures associated with providing mental health services to others, trainee therapists frequently have other stressors, including juggling multiple roles (Dearing et al., 2005). Within psychodynamic training programmes there is an expectation for students to engage in personal therapy (Greenberg & Steller, 1981). Fouad, Hains and Davis (1990) explored personal therapy for therapy students and concluded that 66% of participants

believed that therapy for students should be a component of training. A study by Pope and Tabachnick (1994) exploring psychologists' experiences, problems and beliefs, concluded that although only 13% of their participants were required to enter personal therapy as part of their training programme, 70% now believed that training should 'probably' or 'absolutely' require trainees to engage in therapy.

Studies by Holt and Luborsky (1958) and Kelly and Fiske (1951), cited in Macran et al. (1999) were unable to demonstrate improved functioning among therapist trainees after personal therapy.

Personal therapy can be costly in both emotional and monetary terms (Macran et al., 1999). Additionally, there may be unique considerations about entering personal therapy that are specific to student therapists in training. Holzman and colleagues (1996) argues that in an academic setting, students may fear that receiving treatment could raise questions about their emotional stability and appropriateness for the profession. Similarly, Beck (1976) reported that despite promises of confidentiality by university counselling centre therapists, students may still have concerns about a link between the counselling centre and their academic department.

Many major therapy training programmes and professional associations do not specify that trainees need to compulsory engage in personal therapy, including most university based training programmes in the UK (Truett, 2001). In addition, many therapists view basic personal maturity, self-exploratory activities and

supervision as sufficiently facilitative of therapist self-awareness and personal strength as to make personal therapy unnecessary (MacDevitt, 1987).

### **3.5.(ii) Reducing financial costs to the organisation**

Occupational stress is estimated to be the second biggest occupational health problem in the United Kingdom (UK) after musculoskeletal disorders such as back problems (Gray, 2000). Across all professions it is estimated that stress related absence involves twenty-nine working days lost, a total of thirteen million days per year (Health & Safety Executive, 2005). Within the NHS, each Trust loses on average an estimated £450, 000 a year in stress-related absence.

From an organisational perspective, occupational stress has a real financial cost not just in terms of individual's being absent from work, but also due to decreased productivity and increasingly the possibility of litigation. Preventing and/or managing occupational stress may therefore pay dividends not only in financial terms but also in terms of both individual and organisational health (Holmes, 2001).

The present study highlighted sources of perceived occupational stress for trainee IAPT therapists. Having the information regarding what is the source of stress for organisations enables managers to put preventive or management strategies of those particular sources in place, in order to reduce the level of stress perceived by individuals and thereby potentially reducing the financial cost of occupational stress and its effect on the organisation.

### **3.5.(iii) Legal implications**

There is also a legal imperative for all organisations in relation to occupational stress (Holmes, 2001). Under legislation and common law, employers have a duty of care to their workforce relating to aspects of health and safety of their employees. The Health and Safety at Work Act (1974) and the Management of Health and Safety at Work Regulations (1992) provide the framework for managing health and safety (including occupational stress) within the working environment, placing a statutory duty on employers to ensure the health and safety of their employees.

As an organisation, in moving towards a healthy work situation, the NHS has a legal obligation to monitor the wellbeing (including occupational stress) of its employees. Although findings from the present study indicate that IAPT trainees within the sample have perceived occupational stress levels within normal range, audits/research into occupational stress are still important in order to take proactive measures in reducing stress in the workplace. Particularly, as the NHS continues to change as an organisation.

### **3.5.(iv) The use of supervision to reduce stress for IAPT trainees**

Within the supervision guidelines for IAPT (2008), supervision is cited as a key activity in determining the success of the IAPT programme. The emphasis of this guidance is on clinical supervision for high-intensity therapists and case management supervision for low-intensity therapists. Supervision for IAPT therapists has a critical role for the implementation of quality psychological therapies services and optimising outcomes for clients. The guidance also

makes reference to supervision ameliorating the negative impacts of therapeutic work on the health and well-being of therapists, in particular to therapists carrying high caseloads, offering low-intensity treatments. It acknowledges that therapists' themselves may be experiencing psychological distress, an inability to cope with particular situations or to a challenging organisation, all of which may be addressed within supervision (IAPT, 2008).

According to Truell (2001) supervision is a fundamental method for monitoring and resolving the negative maladaptive effects related to training. Truell (2001) has suggested six types of questions that supervisors could ask trainees with an aim to highlight and create an opportunity to resolve stress resulting from training: how does your family/friends react to you doing the training?; what changes do you notice in yourself?; what changes do you notice in the people around you?; how might all this affect you in the role of therapist?; how do you manage these changes? And any issues to do with the process of becoming a therapist keeping you awake at night?

### **3.5.(v) Creating the 'right' learning environment**

Therapy training often fails to model the core conditions of counselling and instead emphasises competition and evaluation (Truell, 2001). Cushway (1997) acknowledges that most training courses are exceedingly complex structures, having to provide an academic training and assessment programme rigorous enough to meet the stringent requirements of both their host university and their professional accrediting body. In addition clinical experience needs to be organised, assessed and monitored.



Course personnel are often criticised mainly for their lack of openness, support and understanding, with many trainees feeling that they would like more participation and consultation and ultimately enhanced communication between trainees and course staff (Cushway, 1997). Truell (2001) further highlights that it is important to manage the difficulties as they arise with acknowledgement, information, discussion and normalising.

However, perhaps what is most important in tackling occupational stress needs within training is for stress to be a coherent and central part of the course philosophy. From the beginning of training, stress needs to be normalised and acknowledged and supported, with trainees being receiving education in the need to be proactive in looking after themselves. The course environment needs to promote the view that personal support is: normal, acceptable and a preventive measure; and not to be seen as a sign of weakness. (Cushway, 1997). It is also important that not only supervisors but other members of staff are given training in raising the awareness of occupational stress.

The finding from the present study that trainee IAPT therapists have normal levels of perceived stress may indicate that the IAPT training programme is doing something right, something that other training programmes for trainee mental health professionals could adopt and incorporate within their own training.

### **3.5.(vi) Screening for ‘hardy’ trainees**

According to Turnipseed (1999) the concept of screening for ‘hardiness’ may have potential benefits to health care managers. Allowing individuals, who can perform well in a stressful environment or who may be more easily and highly trained to cope with stress to be identified. Kobasa (1979) argues that individuals with ‘hardy personalities’ are naturally curious and find their life experiences interesting and meaningful and they expect change to be the norm as well as an important stimulus for development. These are desirable traits for individuals who work in a rapidly changing environment of the NHS as they make optimistic cognitive appraisals, so change is perceived as natural, meaningful and interesting.

### **3.5.(vii) ‘Hardiness’ training**

To facilitate the practical application of ‘hardiness’, a relevant training programme has been developed and preliminary tested (Maddi, Kahn & Maddi, 1998). According to Maddi (1999) the ‘hardiness’ training programme engages cognition, emotion, and action in coping effectively with stressful situations and employs the feedback from this process to deepen commitment and control and challenge beliefs skills about oneself in the world.

Khoshaba and Maddi (1999) developed workbooks that contain narratives, examples, exercises, and checkpoints for individuals to work through. In the training, individuals are taught not only ‘hardy’ coping skills but also the ‘hardy’ attitude that they can employ to help resolve their difficulties, by turning adversity into opportunity (Maddi, 1999).

Research has shown that among individuals who have completed the 'hardiness' training programme, students subsequently improve their marks, college retention rates, and health, and working adults improve in work performance, job satisfaction, and health (Maddi, 2002). Maddi (1999) postulates that it is essential that the HardiTraining be applied to primary intervention, where individuals have not yet encountered the level of stresses that threaten to undermine them.

### **3.6. My epistemological assumption, theoretical perspective and methodological assumption**

In order to design and implement this research, it was necessary for me to explore my personal research orientation and philosophical approach towards science. This required me to reflect on my epistemological, theoretical and methodological assumptions; providing me with a framework for research study. I drew on what I believe are the main arenas, which have helped me to develop, enhance and justify my stance, which stems from conventional teaching, conducting my own research at an Undergraduate and Master's level and through my clinical work as a practitioner.

#### **3.6.(i) Epistemological assumptions**

Epistemology is a way of understanding and explaining how we know what we know and providing a philosophical grounding for deciding what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate (Crotty, 2003).

The study took an objectivism epistemological stance. According to Crotty (2003), objectivist epistemology meaning and therefore meaningful reality exists apart from the operation of any consciousness. The mind of the researcher is thought to be separate from what is being investigated.

### **3.6.(ii) Theoretical perspective**

Crotty (2003) defines the theoretical perspective as the theoretical stance informing the methodology and therefore providing a context for the process.

According to Denzin and Lincoln (2000) there are four main research theoretical perspectives: positivism / postpositivism; constructivist / interpretive; critical and feminist / poststructural. Each of these four perspectives can be distinguished from responses relating to three fundamental questions.

- I. What is the form and nature of reality and what can be done about it?
- II. What is the nature of the relationship between the knower or would-be knower and what can be known?
- III. How can the inquirer go about finding out whatever they believe can be known?

Two perspectives: phenomenology and positivism/postpositivism appear to be situated in scientific inquiry as polar opposites and mutually exclusive paradigms (Racher, 2002). Phenomenology is often cited as an inductive, descriptive approach that gives subjectivity a privileged position. Postpositivism on the other hand is considered an empirical, explanatory approach that maintains belief in observations (Racher, 2002).

Original positivism argued that only data that can be directly observed and measured counts as knowledge, while other kinds of information or approach to evidence was seen as being unscientific. The four key features of the positivist approach were:

- I. It emphasizes particular assumptions about causality
- II. It puts forward a belief that the observer is completely independent of what is being observed.
- III. It holds an ideal of scientific knowledge as being value-free, and occurring independently of culture and the social context.
- IV. It maintains that all sciences can [and should] be conducted by the same overall methodology (Hayes, 2000).

Although positivism is often used in discussions about the appropriate method to further understand or practice clinical psychology (Miller, 1999) and is viewed as the 'received view', given its reception and adoption by the social sciences (Ponterotto, 2005), positivism has attracted a number of criticisms particularly with regard to the term being used within clinical psychology (Miller, 1999). A common theme relates to those in pursuit of an external, absolute and single correct answer to every question, which may be acceptable in the physical sciences, but does not transfer as well to the more human/social sciences (Miller, 1999).

A further criticism relates to the use of quantitative methods that leads to the reduction of complex human experience or behaviour to a set of simplistic indices, with many arguing that measurement and quantification cannot reflect

the richness of the phenomena to which they are applied. However, whilst it is true that no single measure or set of measures can encapsulate everything about a person, it does not follow that there is no point or value in measurement because of this. What is required of measurement is that it reflects adequately the variables of interest within the model that is being utilised (Miller, 1999).

Most researchers have now rejected the early premises of positivism as they have come to recognise that a single true reality is not apprehensible, that the objective and subjective realities are not mutually exclusive, that there is no absolute source of knowledge, that findings cannot be proven to be true and that inquiry is not value-free (Racher, 2002). This then leads to the birth of postpositivism in response to the dissatisfaction with some aspects of the positivist stance.

Despite some important differences between positivism and postpositivism, the two perspectives share much in common, with the main goal for both being, the explanation that leads to predictions and control of phenomena. In addition both perspectives emphasise the cause-effect relationships that can be studied, identified and generalised (Hayes, 2000).

I would argue that positivism/postpositivism is the theoretical perspective for the present study for several reasons. Firstly, positivists believe that there are real causes that are temporarily precedent to or stimulus with effects (Ponterotto, 2005) and this study is based on 'causal linkages. Secondly, there is an

emphasis on theory in the study. Finally, the research questions were verified using statistical analysis of data.

### **3.6.(iii) Methodological assumptions**

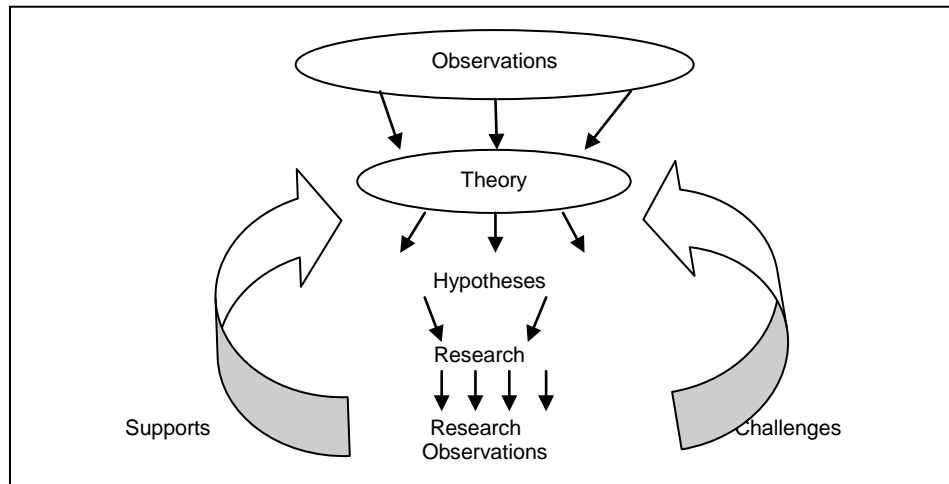
Ford-Gilboe and Berman (1995) have suggested that methods are selected according to the specified purposes of the investigation, whilst others (Clark, 1998) believe that method selection should be determined by an accurate understanding of all forms of inquiry, with justification based on understandings about best ways to answer research questions.

Psychology adopts a scientific approach to developing its knowledge base (Hayes, 2000). The scientific method that was employed for this study was the hypothetico-deductive approach. This approach involves testing hypotheses; predictions about what will or will not happen if a particular theory is true and making deductions from the results of those tests (Robson, 1993). Figure 43 graphically displays the research process inherent in hypothetico-deductive research.

As can be seen in Figure 43 below the first stage in hypothetico-deductive research is the formulation of a theory. A theory is an explanation for a set of observations, which have usually been obtained from previous research. Theories can then be used to make a number of hypotheses, predictions about what will or will not happen. The next stage involves carrying out research which may involve: an experiment, an observation, a survey or a case study to

test your hypotheses. This, in turn, provides research observations which lead you to either support or challenge the theory (Hayes, 2000).

**Figure 43: The hypothetico-deductive research cycle**



According to Hayes (2000) psychology is quite a pragmatic discipline and therefore the majority of research psychologists are eclectic in their approach to science and tend to employ a mixture of approaches depending on what appears to be most suitable for what they are researching. Certainly, as I continue my journey as a professional working within the discipline of clinical psychology I hope to broaden my philosophical perspectives and research methodologies, which includes a firm grasp of the philosophical anchors underpinning approaches to qualitative research.

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## Appendix a – Demographic information sheet

## Demographic Information Sheet

1. Age : ..... 2. Gender: Male ☐ Female ☐

3. Ethnicity (Tick the most relevant box to indicate your ethnic category)

White

Mixed

☐ A British

☐ D White and Black Caribbean

☐ B Irish

☐ E White and Black African

☐ C Any other White background

☐ F White and Asian

☐ G Any other mixed background

Asian or Asian British

Black or Black British

☐ H Indian

☐ M Caribbean

☐ J Pakistani

☐ N African

☐ K Bangladeshi

☐ P Any other Black background

☐ L Any other Asian background

Other Ethnic Groups

☐ R Chinese

☐ S Any other ethnic group

☐ Z Not stated:

**4. Intensity of Therapist**

- ☐ Low-intensity trainee IAPT therapist
- ☐ High-intensity trainee IAPT therapist

**5. Who are you employed by?**

- ☐ Nottingham City Primary Care Trust      ☐ Other please specify
- ☐ Lincolnshire Partnership Foundation Trust

**6. Year of intake?**

- ☐ September 08      ☐ Other please specify
- ☐ February 09

**7. What is your highest qualification on enrolling on the IAPT programme?**

- ☐ MA/MSc/MPhil or PhD
- ☐ Postgraduate diploma or certificate, excluding PGCE
- ☐ PGCE
- ☐ First degree of UK institution
- ☐ Graduate of other overseas institution
- ☐ NVQ/SVQ level 5
- ☐ Graduate equivalent qualification not elsewhere specified
- ☐ HNC or HND (including BTEC & SQA equivalents)
- ☐ Dip HE.
- ☐ NVQ/SVQ level 4
- ☐ Professional qualifications
- ☐ Foundation course at HE level

- ☐ NVQ/SVQ level 3
- ☐ 'A' level equivalent qualification not elsewhere specified
- ☐ Any combinations of GCE 'A'/SQA 'Higher'/SQA 'Advanced Higher' &
- ☐ GNVQ/GSVQ or NVQ/SVQ at level 3
- ☐ NC/ND/ONC or OND (including BTEC & SQA equivalents)
- ☐ Access course (QAA recognised)
- ☐ GCSE/'O' level qualifications only; SQA 'O' grades & Standard grades
- ☐ NVQ/SVQ level 2
- ☐ Mature student admitted on basis of previous experience (without formal  
APEL/APL) &/or institution's own entrance examinations
- ☐ No formal qualification
- ☐ Other, please specify.....

## Appendix b – Participant information sheet



## **Participant Information Sheet**

**Study title:** Occupational stress and hardiness personality traits: Trainee IAPT Therapists providing care in the modern NHS

I am a trainee clinical psychologist at the University of Lincoln and I would like to invite you to take part in a study. Before you decide you need to understand why the study is being done and what it would involve for you. Please take time to read the following information carefully. Talk to others about the study if you wish.

### **What is the purpose of study?**

To investigate the relationship between occupational stress and hardiness personality traits. It will also aim to identify sources of occupational stress, psychological strain and coping resources for trainee IAPT therapists employed by Nottingham City Primary Care Trust and Lincolnshire Partnership Foundation Trust.

### **Why have I been invited?**

All trainee IAPT therapists employed by Nottingham City Primary Care Trust and Lincolnshire Partnership Foundation Trust have been invited to take part in the study.

**Do I have to take part?**

It is up to you to decide if you want to take part in the study. Returning a completed questionnaire is you consenting to the study. Participants cannot be identified from completed questionnaires.

**What will I have to do?**

If you agree to take part in the study please take a questionnaire pack from the box marked 'questionnaire packs' within the supervision /team meeting / teaching room. You will need to complete two questionnaires (exploring occupational stress and hardiness personality traits), which will take you approx 45/55 minutes to complete. Questionnaires need to be completed during your own time and not during work time. Please return the completed questionnaires in a sealed envelope to the researcher (me) and place in the box marked 'completed questionnaires' within the supervision /team meeting / teaching room. To ensure confidentiality please do not put any personal or identifiable information on the completed questionnaires. Participants cannot be identified from completed questionnaires.

**Will my taking part in the study be kept confidential?**

Your manager will not have direct access to the completed questionnaires. The researcher (me) will be the only person analysing the raw data, which will be stored on a NHS computer and password protected. The raw data will be locked and stored for a period of seven years after which it will be destroyed.

**Who has reviewed the study?**

All research in the NHS is looked at by independent group of people, called a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given favourable opinion by Leicestershire, Northamptonshire and Rutland Research Ethics Committee.

**What are the possible benefits of taking part and what will happen to the results of the study?**

You will be given feedback regarding overall results. Identification of individuals and their responses will not be possible. I cannot promise the study will help you individually but the information from this study may potentially help to identify who may be at risk of occupational stress and where and how to target stress prevention and management initiatives.

**What if there is a problem:** If you have any concern/queries about any aspect of this study, you should ask to speak to the researcher (me) who will do their best to answer your questions (01522 886029). If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure. Details can be obtained from your NHS Trust.

If you need to talk to someone about the issues raised in the questionnaire please contact Occupational Health (LPFT 01522 573597; Nottingham City PCT 0115 9514329).

Thank you for taking the time to read this information.

Laura McAuley

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## Appendix c - Interpretive guidelines OSI-R

## Occupational Role Questionnaire (ORQ) and Personal Strain Questionnaire (PSQ)

For T-Scores:

- $\geq 70$  T : Strong probability of maladaptive stress and/or strain
- 60 T – 69 T : Mild levels of maladaptive stress and/or strain
- 40 T – 59 T : Within 1SD of the mean: normal range
- $< 40$  T : Relative absence of occupational stress and/or strain

## Personal Resources Questionnaire (PRQ)

For T-Scores:

- $\leq 60$  T : Strong coping resources
- 40 T – 59 T : Average coping resources
- 30 T – 39 T : Mild deficit in coping skills
- $< 30$  T : Significant lack of coping resources